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ABSTRACT

This report describes a pilot project which involved the development and evaluation of an experimental treatment (training program) suitable for a longitudinal study in which the effects of child rearing practices on general competence in young children are being studied. Eleven families participated in the pilot training program which concentrated on teaching parents successful child rearing practices prior to and during the period when identified educational foundations are at risk in infants 8 to 24 months of age. Both group training sessions and home visits were included in the program. Evaluation methods included home observation of parent-child interactions, child behavior in social and nonsocial tasks, and children's social competence; and several administrations of the Bayley Scales of Infant Development and the Preschool Project Tests to determine language ability, capacity for abstract thought, and the capacity to sense discrepancies. Results indicated the program was reasonably effective. Appendices make up more than 3/4 of the report and include: (1) criteria for family selection and the eligibility and preliminary interview forms; (2) the working draft of the training program (more than 1/2 of the report); (3) checklists and rating scales of the adult assessment scale; and (4) scoring information for social competence observation. (ED)

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SUMMARY

Prior to the period covered by this report, we had spent seven years studying the role of experience in the development of competence during the first six years of life. We confirmed the fact that children developing poorly do not reveal educational deficits until sometime during the second year of life (except in cases of extreme deprivation, serious CNS damage, etc.). Our longitudinal natural experiment was designed to show us the nature of the differences and similarities in child-rearing practices between very effective and relatively ineffective families.

We now plan to perform true longitudinal experiments, with families of average levels of child-rearing practices especially between the period when their new infant is between eight and twenty-four months of age. Comparisons of results will be made among control group families and the experimental group.

A pilot project (the subject of this report) has been performed as a prelude to the comparative experimental work. The pilot project involved the creation of an experimental treatment for the subsequent longitudinal study. That experimental treatment took the form of a training program for families. The end products of the pilot program phase have been the creation of a training program and a pilot execution of that program with eleven families and their children.

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BACKGROUND OF THE RESEARCH

The Harvard Preschool Project was initiated in 1965. Its purpose has always been relatively simple to state; determining how to structure the experiences of the first six years of life so that each child could make the most of whatever potential (for education) he brought with him into the world. Our history since 1965 and up to the time of the present report has been documented in previous final reports and also in publications (B. White [In Press], B. White and J. Watts, et al. [1973]).

Our strategy has been to examine, as closely as we could, the life histories of young children who have gone through the first years of life in a manner characterized by high levels of achievement of general abilities. In addition to the close scrutiny of excellent early development, we have simultaneously been studying the processes wherein children who start off looking reasonably intact in the first months of life gradually fall behind.

The procedure that we have utilized for this purpose can be characterized as a longitudinal, natural experiment. We have sought out special families in Eastern Massachusetts who seem to be doing either an especially affective job of childrearing or a relatively weak job of childrearing in the preschool years. We have used ethological observational procedures to observe the day-to-day development of new children in these families as it happens between the first and third birthdays of these children.

There have been two central outcomes of this kind of research. First of all we have learned a great deal about the details of daily life of different kinds of young children. We have learned, for example, of the kinds of experiences children typically undergo and the kinds of childrearing practices that parents employ. The second kind of outcome was the major purpose of the research. We have generated a collection of hypotheses about effective and ineffective childrearing practices. Bear in mind that our goal is an understanding of the effect of childrearing practices on the development of general competence in young children.

Natural experiments such as the one that we have recently executed can only produce correlational data on the effects of childrearing practices. Therefore, we must be guarded in our statements about the impact of different environmental circumstances on development. The kinds of correlational data that we have created constitute a source of hypotheses which, in any proper scientific investigation, should then be put to experimental test. It was our plan to move from our natural experiment to a true longitudinal experiment wherein children would be assigned at random to several groups and where the hypotheses generated from our previous research would be put to experimental test in the lives of developing children.

When we proposed such work, Mrs. Esther Kresh, of the Federal Office of Child Development, wisely advised us to budget a substantial period of time to develop and field test our experimental treatment. She reasoned that our experience in child development research had not included experience training young families in their childrearing practices. In retrospect her counsel was extraordinarily valuable. Had we attempted our comparative experimentation when we initially intended to, I believe we could not have produced valid results. Following Mrs. Kresh's advice we devoted the two years that this report deals with to the creation and field-testing of an experimental treatment, or put in more mundane terms, a training program for families with young children.

SPECIFIC PLAN

Our first activity was the analysis of what we had learned from our preceding longitudinal, natural experiment. The second activity consisted of the creation and piloting of a training program for families in order to test the feasibility of our experimental treatment.

Analytic Work

In the longitudinal study that preceded this particular phase of the work, some 40 families had been observed as they reared their children in the second and third years of the children's lives. Half of these children were observed for two full years beginning on or about their first birthday. The other half were first observed on their second birthday and were followed for another year. In addition to comprehensive assessments at or about the third birthday, all forty children are being retested on or about their fifth birthday.

We gathered a large amount of data on these forty children. We had data on typical everyday experiences along with information about the behavior of other people as it related to the stream of experience. In most cases the other people were the mothers of these children, but on occasion the fathers, housekeepers, other siblings, and occasionally peers would be involved. We also gathered data on the course of acquisition of various competencies of these children and data on their social experiences. Not only did we collect quantitative data in substantial amounts on these forty children, but the core staff of the project also gained a good deal of informal information about all aspects of the children's lives. Perhaps the most interesting and most important aspect for the research concerned the environments of the children; both the physical and human circumstances within which they lived. It is hard to come away from a study where you visited a home every other week, twenty-six times a year for one or two years, without an intimate understanding of the family style and the childrearing practices that are involved.

In addition to the work that the core preschool project staff performed in that natural experiment, there was a simultaneous examination of the lives of these children going on under the direction of Jean C. Watts. Her special focus was on environmental factors especially the role of the primary caretaker. A good deal of interesting information on these same children was therefore generated by Dr. Watts and her staff. In the earlier major report on the results of the longitudinal study (White and Watts, et al., 1973) the data from the two efforts was not fully integrated. Although the same subjects were shared, the research was actually done quite independently in each case. The pilot study which is reported in this final report did not partake in any substantial degree of the data from Dr. Watts' study. Dr. Watts therefore has no responsibility, formal, or otherwise, for any of the research to be discussed.

The experience of the longitudinal study along with other relatively well-established information on early growth and development led our staff to focus on that time in life between the onset of crawling and language learning ability (six to eight months of age) and the second birthday. We had become convinced, from all that we had learned, that children generally manage to get to the crawling stage reasonably intact (from an educational point of view), but that few manage to get the most, educationally, out of the succeeding sixteen months. We therefore felt that the first priority of any course of research oriented toward the maintenance of optimal development in the early years was to prevent the falling off of development in the eight- to twenty-four-month period.

We had come to believe that there were four educational foundations that were at risk between eight- and twenty-four-months of age:

(1) language development

(2) curiosity development

(3) social skills and attachment development

(4) the development of the roots of intelligence.

Our experimental treatment-training program was therefore designed to: (a) make parents more aware of the course of development of these four educational foundation processes, (b) help them emulate the childrearing practices of apparently successful parents, and (c) help them avoid those of apparently unsuccessful parents. Further shaping of the experimental treatment came from the actual experiences we had in attempting to work with a small group of families as their children grew from five months to twenty-four months of age.

Executing the Pilot Study

Specific Steps

1. Introduction

Through the mechanism of regular staff discussions of the experiences of working with parents on their childrearing practices, we believe we strengthened our experimental treatment. For example, we knew that there would be a good deal of verbal interchange between staff and families throughout the pilot period and the training program in general.

Therefore, we decided we would relieve the stress that might be caused by long-term verbal interchange by using a few well chosen movies. We screened quite a number before we selected some for trial, but we could not know in advance how effective the various movies would be. Final judgment on films was the kind of practical problem which could only be resolved by trial and error.

Similarly, the optimal frequency of visits to homes was something that we found difficult to anticipate in advance; we learned how to space the visits through experience. Numerous other related kinds of learnings were met and coped with through the actual piloting of the project. Some of the more interesting aspects will be discussed further on.

2. Subjects

We wanted to work with about a dozen families in this pilot phase. We were confident that not every family we began to work with would turn out satisfactorily for the purposes of the research. We were concerned, for example, that if a young couple was not getting along terribly well with each other, the family discord (which had to be expected once in a while) might interfere with the proper utilization of the ideas about childrearing that we sought to test. We also were concerned with the possibility of families being unreliable. From our previous work with families we knew that there were some who often failed to keep appointments. For these reasons we started with a few extra families (n=16) and reduced to twelve between the five and eight month period of their child's lives. Subsequently, one additional family dropped out because of health reasons. We will report on our experience with the remaining eleven families from the time their children were eight months on.

We chose families in a rather special way. We did not want families who were likely to do such a good job with their children that there was not much room for improvement; nor, did we want families where conditions were such that the ideas would not be given a fair chance. So, we aimed for families with average childrearing abilities. We tried to determine the childrearing capacity of each family as carefully as we could, although it is clear that we currently have no very reliable yardstick to measure that capacity in each family. Our criteria for selection and eligibility are therefore of likely interest in this regard; and, they will be found in Appendix A.

The important characteristics of the families in the study are indicated in Table I.

3. Procedures

The goal of this pilot study was the creation of an effective training program to assist people in educating infants, which would help us to put the hypotheses generated from the natural experiment to a proper experimental test. We have produced such a training program (see Appendix B). We have also piloted it; and, in the process, refined it. We feel confident that this is a feasible, though imperfect, training program. The program concentrates on the age range, five to seventeen months. The reason it concentrates on the five to seventeen month period is that we feel that a powerful input can be made at that age into the development of the young child to preclude the loss of potential we claim is generally happening. We believe that most families do

Table 1

SUBJECT CHARACTERISTICS

PILOT STUDY (N=11)

Subject I.D.	Sex	Bayley Test Score at 5 mos.	Hollingshead Redlich Code	M's Education	F's Education	M's Occupation	F's Occupation	M's Ethnic Background	F's Ethnic Background	Number of Children in Household
46	F	135	IV	High Sch. Graduate	High Sch. Graduate	Housewife	Laborer	Irish-English	Irish-English	3
47	M	106	III	High Sch. and Voc. Trng.	High Sch. and Part. Col.	Housewife	1st Line Mgmt. Tel. Co.	Canadian	Irish	2
48	F	123	II	High Sch. and Part. Col.	M.A. in Divinity	Housewife	Minister	Scotch-Dutch	WASP	2
49	M	100	III	High Sch. Graduate	High Sch. Graduate	Housewife	Plumber	Irish	Irish	2
50	F	117	III	High Sch. and Part. Col.	High Sch. and Apprentice Work	Housewife	Foreman-Pipefit. Constr.	Irish	Irish	2
51	F	101	IV	High Sch. & Courses	High Sch. & Courses	Housewife	MBTA Operator	American	Canadian	2
52	F	94	III	High Sch. Graduate	High Sch. and Part. Col.	Housewife	Roofer	WASP	WASP	3

Table 1 - page 2

SUBJECT CHARACTERISTICS

PILOT STUDY (N=11)

Subject I.D.	Sex	Bayley Test Score at 5 mos.	Hollings-head Redlich Code	M's Education	F's Education	M's Occupation	F's Occupation	M's Ethnic Background	F's Ethnic Background	Number of Children in Household
53	M	94	III	High Sch. and Part. Col.	B.A.	Housewife	Video Tech.	WASP	Irish	2
54	M	84	IV	High Sch.	High Sch. Graduate	Housewife	Photo-Engraver	American	Canadian	3
55	M	102	III	High Sch. and Part. Col.	High Sch. Graduate	Housewife	MBTA Foreman	Irish	Irish	2
56	F	102	III	High Sch. Graduate	High Sch. and Apprentice Work	Housewife	Electrician	Irish	Irish	2

a perfectly adequate job with their children until the children get to be of crawling age; but, very few families do an exceptionally good job from the onset of crawling on through the second birthday. We were particularly concerned with certain natural developments of the second year of life. We knew that sometime around fourteen, fifteen, or sixteen months of age children enter into negativistic behavior, and families find this difficult to deal with. We therefore extended our input to these families until the seventeenth month in order to provide assistance during those months when the family is learning to cope with the problems generated by negativism.

From Schedules I and II you can see that we have treated the five- to eight-month period separately from the eight- to seventeen month period. We reasoned that the five- to eight-month period is a relatively easy one for most families and could be used as a time to prepare them at a relatively leisurely pace for what was going to happen when the child began to crawl about the home. We used two kinds of activities to introduce the training program to families during this time period. We had group visits at the University featuring discussions and films; and, we had follow-up home visits to discuss the films and to get to know the individual circumstances in the home. Descriptions of what went on in each of the group and home visits are presented in Appendix B, as part of the description of the training program.

Once the baby turned eight months of age we shifted into high gear in our training program. The frequency of home visits was raised such that we were contacting families in their own homes, approximately every

SCHEDULE I

G.V.I	H.V.I	G.V.II	H.V.II	G.V.III	H.V.III	G.V.IV	H.V.IV
5 mos.	5 mos. 1 wk.	5 mos. 3 wks.	6 mos.	6 mos. 2 wks.	6 mos. 3 wks.	7 mos. 1 wk.	7 mos. 2 wks.

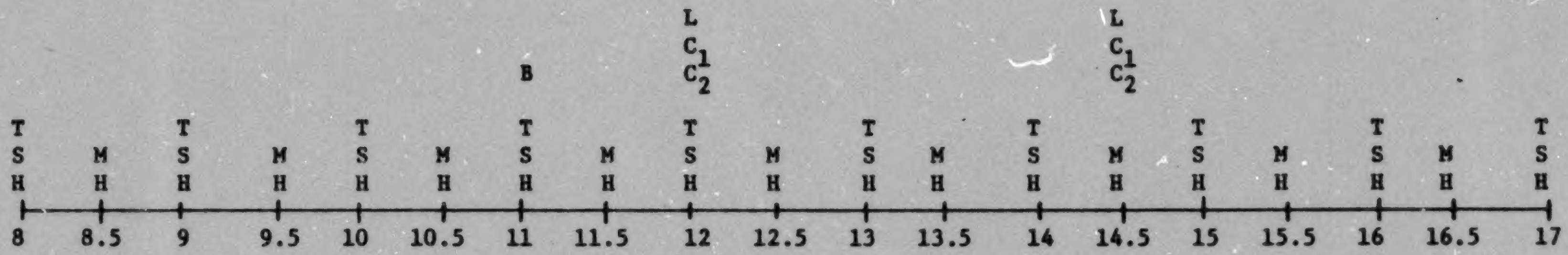
Chronological Age of Child (5-8 Months)

KEY:

G.V. = Group Visit

H.V. = Home Visit

SCHEDULE II


T S H
8
M H
8.5
T S H
9
M H
9.5
T S H
10
M H
10.5
B T S H
11
M H
11.5
L C_1 C_2 T S H
12
M H
12.5
T S H
13
M H
13.5
T S H
14
L C_1 C_2 M H
14.5
T S H
15
M H
15.5
T S H
16
M H
16.5
T S H
17

Chronological Age of Child (8 - 17 months)

KEY:

T = Collection of task data

S = Collection of social competence data

M = Collection of maternal behavior data

H = Home visit

B = Bayley Scales of Infant Development

L = Preschool Project Test of Receptive Language Ability

C_1 = Preschool Project Test of Sensing Discrepancies

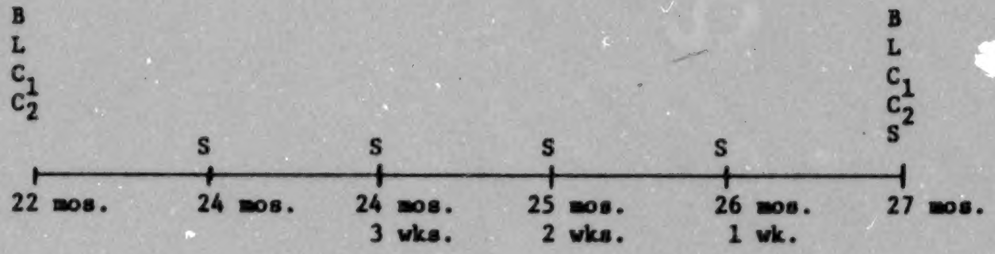
C_2 = Preschool Project Test of Abstract Abilities

other week. Simultaneously, the frequency of group get-togethers at the University was reduced. In addition, we began to monitor closely the processes of development.

We were particularly interested in the stream of experiences of these children and such data collection is represented in Schedule II by the symbol T. We were also interested in the behavior of the mothers and especially the degree to which it corresponded to the behaviors we were advocating. The frequency with which we sampled those behaviors is represented by the placement of the letter M. We collected data on the details of the child's social life (S), and we were assessing the growth of competence periodically through the time (B, L, C_1, C_2, and S). As the child approached two years of age, we initiated our final assessment measures which can be seen in Schedule III.

After each of the home visits a relatively brief report of what transpired was produced by the particular home visitor. We routinely held meetings to discuss our views of how things were going in each of the family situations. The home visit reports were very important elements in those discussions. Samples of those home visit reports are presented with the training program material in Appendix B.

SCHEDULE III


B
L
C_1
C_2
S
S
S
S
B
L
C_1
C_2
S
22 mos.
24 mos.
24 mos. 3 wks.
25 mos. 2 wks.
26 mos. 1 wk.
27 mos.

Chronological Age of Child (months and weeks)

KEY:

S = Collection of social competence data

B = Bayley Scales of Infant Development

L = Preschool Project Test of Receptive Language Ability

C_1 = Preschool Project Test of Sensing Dissonance

C_2 = Preschool Project Test of Abstract Abilities

EVALUATION OF THE PILOT STUDY

Is the program acceptable to families?

At the outset of the study, we had no particularly strong hold over these families. We did pay them for participation at the rate of $5 for a half day, and certainly none of these families were so well off that the money was not welcomed. However, we asked them for a good deal of cooperation over a protracted period of time. All in all we were interacting with them for some nineteen or twenty months and we were visiting their homes on the average of two to three times a month throughout that period. If the program were not deemed to be useful, or if the people attempting to execute it were not particularly welcome in the home, the degree of participation in the study would probably have reflected those difficulties. Following the departure of the one family out of twelve (where there was a health problem very early in the project) the other eleven families participated religiously. In total, we scheduled approximately 500 home visits with the eleven families. Of those, 495 appointments were kept. Attendance at the group visits held here at the University was significantly lower (51 of 66 visits made). While this particular sample is small and somewhat homogeneous, this result seems rather important.

Did the program have any effect on child-rearing practices?

One of the special capacities of research of this sort is to go beyond the statement of the training procedures to a closer examination of the actual processes involved in the child's development. We have made a serious attempt to do this. We have sampled the behavior of the mothers involved in the study to see the degree to which they have actually emulated the childrearing practices that we believe are most desirable and the degree to which they have apparently avoided non-beneficial childrearing practices (see Appendix C for Adult Assessment Scale). In addition to this look at the extent to which the training "took," we have sampled the stream of experiences each child underwent using our task instrument. These two kinds of data are not commonly gathered in most evaluations of educational programs, but they represent a basic quality of the style of research the Preschool Project performs.

Adult responses to children's overtures. Table 2 presents summary data on the behavior of the caretakers in this study. It is based upon thirty-minute continoous observations spaced one month apart and numbering anywhere from a minimum of five to a maximum of ten observations per family with the modal number between eight and nine. The age of the child during these observations was between eight and one half to sixteen and one half months of age, corresponding to the intensive family support phase of our project. Although a good deal might be made of these data, I only intend to present what seem to be reasonably impressive highlights. Data from one of our eleven families is not included. Because of illness and various other uncontrollable factors, we only managed to accumulate four, half-hour protocols; and, the variability of data of this sort is such that we felt that a minimum of five would be necessary before we could have confidence in the representativeness of the information.

Table 2

Adult Behavior in Response to a Child Initiated Interaction ▪

Category	Range	Median
Frequency of S's overtures to A*	1-13	5.0
Frequency of overtures responded to by A*	1-13	4.5
Total duration of responses*	40-463 seconds	105.0 seconds
$\bar{X}$ duration of response time*	13-40 seconds	26.0 seconds
Timing and direction of A's response:*		
a. immediate	67-100%	82.0%
b. delayed	0-20	0.0
c. ignored	0-33	0.0
d. rejected	0	0.0
A's perception of S's needs:*		
a. accurate	81-100	100.0
b. partial	0-50	0.0
c. none	0	0.0
Level of difficulty of A's words:*		
a. appropriate	0-100	67.0
b. too complex	0	0.0
c. too simple	0-50	10.0
d. baby talk	0	0.0
e. none	0-25	0.0
A's satisfaction of S's needs:*		
a. yes	20-100	82.0
b. partial	0-20	0.0
c. no	0-60	7.0

▪This data summarizes observations on eleven Ss during the ages from 8-17 months. The number of 30-minute observations on each S range from 5-10 with a median of 8 or 9 observations.

*mean per 30-minute observation

(a) *What percentage of the time did adults respond to the overtures made by the children?*

The figure indicates that in nearly every instance overtures made by a child to an adult were responded to. Even in the most extreme of circumstances the response never fell below 75%. In passing I should remark that that lowest figure is for the one family where our staff agreed, as a whole, that we had failed in our attempts to significantly influence the childrearing practices of the adult involved.

(b) *How much total time did these adults spend in responding to overtures from the children?*

Exclusive of routine caretaking (which will be discussed a bit later), we find the central tendency in our ten family situations to be 106 seconds out of the 30 minutes or slightly under two minutes.

(c) *What was the average duration of any individual response to a child's overture?*

The answer to that question is 25 1/2 seconds or slightly less than 1/2 minute.

(d) *How quickly was the child responded to?*

Here it is clear, for the most part, the response on the part of the adult was immediate. By immediate we mean no later than three seconds after the child initiated an overture. Eighty-six percent of the time is the median value for immediate responses showing that responses were not always immediate, but the scores for delayed responses or ignoring overtures are very low for the group as a whole.

(e) *How accurately did the adult perceive the subject's need?*

It is rather remarkable that the subject's need was almost always perceived accurately.

(f) *To what extent was language used, and when it was used was it at a level of difficulty which was neither overly complex or overly simple for the child?*

The figures of 72% for the average appropriate level and 9% for language that was too simple for the child are the only entries.

(g) *To what extent did the adult meet the child's need?*

Complete satisfaction seemed to us to occur 82 1/2% of the time. Occasionally, there was only partial satisfaction and slightly more often there was a definite failure to satisfy the young child.

Adult-initiated interactions. Turning to the information outlined in Table 2A, we find information about the interactions between caretaker and child that were initiated by the adult. Here we find, for example, that the central tendency was five of such interactions per 30 minutes which corresponds exactly to the central tendency for child-initiated interchanges. The total duration of time spent in such activities averaged out to 65 seconds or a bit more than one minute per half hour. The average duration of the interchanges was some 16 seconds, (considerably shorter than the duration of responses to child-initiated interactions). The ratio of purposes of stimulating versus control of the child favored stimulating the child (60 to 40%).

The final bit of information about maternal behavior is less secure in that we did not always collect the information. It concerns the *total*

Table 2A

Adult Behavior When Initiating Interaction With a Child[*]

Category	Range	Median
Frequency of A initiated interactions*	3-9	4.0
Total duration of interactions*	55-215 seconds	65.0 seconds
$\bar{X}$ duration per interaction	13-30 seconds	16.0 seconds
A's purpose*		
a. to stimulate	40-86%	60.0%
b. to control	14-60	40.0

---

[*] This data summarizes observations on eleven Ss during the ages from 8-17 months. The number of 30-minute observations on each S range from 5-10 with a median of 8 observations.

*mean per 30-minute observation

amount of interaction time including routine caretaking, such as; diapering of the baby, wiping a child's face, and feeding of the child. As far as we can tell, the time spent in such activities was less than one minute, but with a rather wide range moving on up, in one instance, to 19 out of the 30 minutes in total. If you add all time spent in adult-child interactions; 105 seconds spent responding to a child's overtures, 65 seconds in adult-initiated interchanges, and no time (on average) in routine caretaking, you get a total of 170 seconds or just under three minutes for the 30-minute observation span or approximately 9.5% of the time.

Discussion

I believe these figures show that by and large the adults in this training program (in nearly every instance the mothers of the children) did come pretty close to what we asked them with respect to their interchanges with their children. The overall percentage of time involved in interchanges appears to be slightly greater than what we had previously experienced in our natural observation data where no attempt was made to influence the behavior of the parents; and, this difference is understandable. The data feature rather wide variability in some instances. We found, for example, in the number of overtures to the mother, a range of from 4 to 13 for a 30-minute observation session. Also, in regard to the tendency to stimulate a child or to control him, again we find rather broad ranges with one mother stimulating a child 40% of the time in such interactions and another stimulating her child 86% of the time. Conversely, the range with respect to controlling episodes by the mother went from a low of 14% to a high of 60%; these figures being the reciprocal of the figures on stimulation. The only place where one might have hoped for significantly better performance by the pilot families was in the area of the difficulty level of the words used by the parents. The central tendency of 72% (appropriate behavior) with a range of from 50 to 100% stands out as a less impressive performance than other aspects of these data.

My conclusion is that we did, indeed, manage an effect on the behavior of the mothers and an effect, very probably, in the direction that we desired. There is no way of being certain of that statement because we do not have comparable data from the control group during this particular phase of our research. Such data will be available as our next study progresses.

Did the program have any effect on the experiences of the children?

The data we gathered with our task instrument should tell us (to some extent) the degree to which the experiences of the children were affected by the program. By themselves these data cannot answer the question, but fortunately we have data on the same topic for other children that we had studied in our previous work. These children fell into two particularly important categories. We have data on the experiences of children who while starting equivalently in terms of achievement at twelve months of age ended up at three years of age either outstandingly well developed or rather poorly developed. The extent to which the tasks of children in this pilot group in the training program resembled the experiences of children developing well versus those developing poorly should therefore be instructive. One caveat, however; none of the instruments we use are perfect. They all have their weaknesses. First, there is the simple question of the reliability of the instruments which in some instances is rather low. Then, there is the question of the power of the instruments; whether we are really capturing what it is about mothers' behaviors or the particular experiences of children that is important, which at this point in time is not certain. With those warnings in mind let us take a look at the task data outlined in Table 3.

The task data presented are for nine of the eleven pilot subjects. In one case, due to illness in the family, we were unable to gather adequate data. In another case, we are deleting the data on the experiences of one child in the frank acknowledgment that our program failed with his family. The data were gathered on five occasions during the twelve- to fifteen-month age range. For the purpose of comparison the five highest and five lowest achievers in our preceding study are used to provide some sort of standards against which to judge the data from the pilot subjects.

The most desirable outcome of the pilot study would have been a striking similarity between the typical experiences of our pilot study and those of our extraordinarily well-developed children. Such was not the outcome. On balance, I would judge that their patterns of experience more closely resembled those of the well-developing children than those who developed poorly; but, there are some exceptions to that statement. Perhaps the most hopeful signs in that graph have to do with the categories of nontask behavior, fine motor mastery experiences and of live language directed to the subject.

Nontask experiences are those where a child does not seem to be doing much of anything. Children engaged in desultory scanning or aimless wandering would be categorized as being in a state of nontask. If

Table 3

All Tasks Comparative Data▪

Social Tasks	Pilot Group N=9	Advanced Group N=5*	Delayed Group N=5*
To please	1	0.3	0
To cooperate	2.5	2.1	2.0
To gain approval	0	0	0
To procure a service	1.3	1.4	0.7
To gain attention	1.4	2.9	1.4
To maintain social contact	2.4	1.7	1.6
To avoid unpleasant circumstances	0	0	0
To annoy	0	0	0
To direct	0	0	0
To assert self	1.2	0.3	0.8
Nonsocial Tasks			
To eat	7.5	4.1	6.2
To gain information (visual)	12.2	21.4	11.0
To gain information (visual & auditory)	5.5	5.8	3.2
Nontask	12.9	9.3	18.2
To pass time	4.4	0.8	4.1
To find something to do	0	0	0
To prepare for activity	0.5	1.5	1.3
To construct a product	0	0	0
To choose	0	0	0
To procure an object	4.4	2.3	4.0
Gross motor activity	0.7	0	0
To gain pleasure	2.1	0.6	0.7
To imitate	0.7	0.1	0.2
To pretend	0	0	0
To ease discomfort	2.3	0.5	1.7
To explore	15.2	14.9	12.5
Mastery** - Total	11.8	11.4	15.3
Fine motor mastery	6.8	-	-
Gross motor mastery	3.1	-	-
Language - Live - Direct	2.9	5.8	2.1
Other	0.9	0	0.4

▪ The data on the pilot advanced and delayed groups summarizes 3-5 30-minute observations on each S during the 12-15 month age range.

* Thirty-nine Ss were ranked according to their achievement levels at 3 years. The data presented in this table represents the scores for the 5 most advanced and the 5 most delayed subjects.

** Mastery - At the time the data were recorded for the advanced and the delayed groups, observers did not discriminate between gross and fine motor mastery. Consequently, only total mastery scores are available for these two groups.

you look at the chart you will find that well-developing children had the least amount of such experience (9.3%). The pilot subjects had 12.9% and the children who subsequently developed rather poorly had by far the greatest amount of such experience at this time in their lives (18.2%).

Turning to the area of mastery experiences, we find that unfortunately the breakdown between fine and gross motor mastery tasks is only available for the pilot subjects. At the time we were gathering these data on the other two groups, we had not routinely been making the distinction between fine and gross motor mastery experiences. We had, however, noticed from the outset and repeatedly through our research that high frequency of fine motor mastery experiences was a regular accompaniment to very good development. The fact that fine motor mastery tasks are very common in our pilot group is therefore a probable good sign.

Moving to the third area we find that well-developing children had by far the greatest amount of live language directed toward them in this age range (5.8%). However, the pilot group had 2.9% and our poorly developing children had 2.1%. While these differences are not large, and may not even be statistically significant, they are in the right direction.

In contrast, one aspect of the task data is particularly worrisome. You will note that the well-developing children had negligible amounts of pass time* experience at this point in their lives. The poorly-developing children and the pilot group (both 4.1%) looked very much alike in this regard. Why this happened we really do not know, but we would have been much happier had we seen much less pass time experience in the lives of our pilot sample.

---

*Passing time occurs when a child has nothing interesting to do, but he cannot leave the situation. Confinement to a playpen or a car seat, for example, soon becomes pass time experience most of the time.

The only other point within these data that I believe merits attention at this time is in the gain information (v), category. Gain information (v) means steady staring activity. There is a great deal of it in our well-developing children (21.4%), and slightly more than half as much in both our poorly developing children and in our pilot group. Again, we cannot tell the reasons but we would have preferred to see a closer resemblance by our pilot group to the pattern found in the well-developing group.

In summary then, while certain key differences in the stream of experience favor the pilot group, one important difference went against them. By and large we did not produce a pattern of experiences in the pilot children dramatically like those in the children developing unusually well in our previous study.

Did the program have any effect on the children's development?

This discussion will be organized in two sections. The first, Section 1, on Intellectual Abilities. The second, Section 2, on Social Competence. Intellectual abilities in turn will be broken down into: performance on a standardized test (the Bayley), performance in the area of language development as assessed by the Preschool Project language test, performance in the area of abstract thinking ability and performance in the area of sensing of discrepancies.

Social competence will be discussed in terms of the child's social competencies in his or her interactions with adults. In order to make some judgments about the effectiveness of our program (in the light of the fact that we did not have a contemporaneous control group) the scores on the various measures for the pilot group will be compared to national norms whenever possible or the performance of groups that we have previously worked with.

1. Intellectual Abilities

(a) The Bayley Mental Index Performance

As you can see from Table 4, we have four Bayley Mental Index scores for each of our 11 pilot subjects, starting when they were five months of age and ending when they were twenty-six months of age. The next to the last column (22 + 26) represents the average for the 22 and 26 month scores combined. At five months of age the group looked unremarkable, with a central tendency of 102. At eleven months of age, they looked, at first glance, to be slightly advanced; but, when you look at the scores for children from the previous study, a different interpretation comes to mind. The 106 as a central tendency for the advanced group in the preceding study is probably not statistically different from the 109 for the pilot group, nor is the 112 for the delayed children in the preceding study likely to differ significantly from the score of the pilot group. What these three numbers tend to suggest is that at eleven months of age you cannot predict where children will be when they get to be three years of age.* At twenty-two months of age when the Bayley score is likely to

---

*One reason I say that is because for our advanced and delayed group, we have huge amounts of data on their performance at three years of age and indeed at five years of age and our advanced group is a very outstanding group at those ages. Our delayed group is outstanding as well, but in the sense that they are scoring on the average in the low 90's at best on achievement tests where our advanced groups are scoring well above 120.

Table 4

COMPARISON DATA ON THE BAYLEY SCALES OF INFANT DEVELOPMENT

Groups	Age at Testing (Months)						
	5	11	12	22	24	22+26 $\bar{x}$	26
Pilot Group							
N	11	11	-	11	-	11	11
Range	84-135	99-117	-	84-145	-	87-131.5	90-127
Group Median	102	109	-	109	-	106.5	104
Advanced Group*							
N	-	-	5	-	5	-	-
Range	-	-	100-134	-	116-143	-	-
Group Median	-	-	106	-	132	-	-
Delayed Group*							
N	-	-	5	-	5	-	-
Range	-	-	103-134	-	66-119	-	-
Group Median	-	-	112	-	96	-	-

---

*Thirty-nine Ss were ranked according to their achievement levels at 3 years. The data presented in this table represents the scores for the 5 most advanced and the 5 most delayed children to the extent that it was available at a particular age range.

have considerably more predictive power our group continues to score at 109. At twenty-six months of age they score at 104. Their average Bayley score at two years of age is 106.5. That figure should then be compared with the figures for the other groups. As you can see, our pilot group clearly cannot compete with the most successful group in the preceding study. What that means will be discussed a bit later. On the other hand, they do compare favorably with the previously studied children who developed poorly. The difference between 106.5 and 96 is very probably a real difference.

(b) Language Development

The same general procedure has been followed in the presentation of data on language development (see Table 5). At one year of age our pilot group looks pretty much like the group who later developed well and perhaps slightly better than the group who later developed poorly. At twenty-two months of age our pilot group has a central tendency of 24 months in our somewhat arbitrary developmental scale; whereas, at twenty-five months of age our advanced group scores at 36 months and our delayed group scores at 21 months. If that were all the data we had, we would be rather disappointed. Although we do not have complete data on our pilot group,* the first five pilot subjects that we did score at 26 months of age had a central tendency in their scores of 36 months of age. Indeed, in each case, those impressive scores represented large gains between twenty-two and twenty-six months of age. In retrospect it is unfortunate that we did not continue to test all the group until thirty-six months, but you must remember that research funds were not available, and also that we looked upon this particular pilot study as an interim affair.

---

*Due to factors beyond our control.

Table 5

COMPARISON DATA ON LANGUAGE ABILITY

Groups	Age at Testing (Months)				
	12	12-1/2	22	25	26
Pilot Group					
N*	11	-	11	-	5
Range	10-16	-	18-36	-	27-48
Group Median	14	-	24	-	36
Advanced Group**					
N	-	5	-	5	-
Range	-	10-21	-	36-51	-
Group Median	-	14	-	36	-
Delayed Group**					
N	-	5	-	5	-
Range	-	10-16	-	10-40	-
Group Median	-	12	-	21	-

---

*Due to the cessation of funds for this study, only 5 of the 11 Ss were tested at 26 months.

**Thirty-nine Ss were ranked according to their achievement levels at 3 years. The data presented in this table represents the scores for the 5 most advanced and the 5 most delayed children to the extent that it was available at a particular age range.

(c) Abstract Thinking Ability

Again, using the same format (see Table 6) we see what looks to be something of an advantage for our pilot group and our advanced group over our delayed group at one year of age. We find at twenty-two and twenty-six months of age considerably higher scores for the pilot group than the delayed group (which is encouraging) and yet they remained somewhat lower than the scores for our advanced group.

(d) Sensing Discrepancies

We find a pattern that is not exactly the same as preceding ones (see Table 7). Our pilot group looks like our advanced group at one year of age and both look better than the delayed group. At twenty-two months, our pilot group has improved but is nowhere near as impressive as the advanced group. In fact, they look pretty much like the delayed group in this test area, and that picture stays the same for the five subjects we did test at twenty-six months of age.

2. Social Competence

The social competence tests consisted of data gathered through continuous thirty-minute observations of children as they went about their ordinary business in their own home. For information about the procedures see our Social Abilities Manual (White, Watts, et al., 1973) and Scoring Procedures. Scoring procedures are included in Appendix D.

Since the children in the first two years of life had relatively little opportunity to interact with true peers (or indeed anybody other than their own parents) the data we present predominantly have to do with

Table 6

COMPARISON DATA ON THE CAPACITY FOR ABSTRACT THOUGHT

Groups	Age at Testing (Months)				
	12 mos.	12-1/2	22	25	26
Pilot Group					
N*	11	-	11	-	4
Range	8-15.5	-	15.5-20.5	-	20.8-28.5
Group Median	15.5	-	20.5	-	22.5
Advanced Group**					
N	-	5	-	5	-
Range	-	8-15.5	-	20.5-28.5	-
Group Median	-	15.5	-	24.5	-
Delayed Group**					
N	-	5	-	5	-
Range	-	8-15.5	-	16.5-20.5	-
Group Median	-	11.0	-	16.5	-

* Due to the cessation of funds for this study, only 5 of the 11 Ss were tested at 26 months. One test was declared invalid.

** Thirty-nine Ss were ranked according to their achievement levels at 3 years. The data presented in this table represents the scores for the 5 most advanced and the 5 most delayed children to the extent that it was available at a particular age range.

Table 7

COMPARISON DATA ON THE CAPACITY TO SENSE DISCREPANCIES

Groups	Age at Testing (Months)				
	12 mos.	12-1/2	22	25	26
Pilot Group					
N*	11	-	11	-	5
Range	1-3.5	-	2-7	-	2-7
Group Median	2	-	3.5	-	3.5
Advanced Group**					
N	-	5	-	25	-
Range	-	0-3	-	3.5-7.0	-
Group Median	-	2	-	6	-
Delayed Group**					
N	-	5	-	5	-
Range	-	0-2	-	3.5-7.0	-
Group Median	-	0	-	3.5	-

---

*Due to the cessation of funds for this study, only 5 of the 11 Ss were tested at 26 months. One test was declared invalid.

**Thirty-nine Ss were ranked according to their achievement levels at 3 years. The data presented in this table represents the scores for the 5 most advanced and the 5 most delayed children to the extent that it was available at a particular age range.

interactions with adults who, in most instances, turn out to be the child's own mother (see Table 8). There are five social abilities reported on:

(1) Getting and holding the attention of an adult in socially acceptable ways.

(2) Using the adult as a resource after first concluding they cannot handle the task themselves.

(3) Expressing affection and mild hostility.

(4) Showing pride in achievement.

(5) Engaging in role play.

The data indicate that our pilot group (this time numbering ten subjects because we did not have adequate data on the eleventh) looks a bit more like our advanced group at twelve- to fifteen-months of age than the delayed group. We are most encouraged by the scores in respect to use of an adult as a resource where our group is even higher than the advanced group, and both groups are considerably above the delayed group. At two years of age, our pilot group is much more like the advanced group than those of the children who developed poorly. Note that pride in product and role play abilities were not seen in our pilot group while there were modest signs of such abilities in both groups in the preceding study.

Table 8

Comparison Data on the Development of Social Competence with Adults*

Groups	Age (Months)								
	12-15**			22-27***			24-27****		
	Gain Attention	Use Adult as a Resource	Express Affection/ Hostility	Gain Attention	Use Adult as a Resource	Express Affection/ Hostility	Gain Attention	Use Adult as a Resource	Express Affection/ Hostility
Pilot Group									
N-	10	10	10	10	10	10	-	-	-
Range	10-47	17-39	14-59	20-62	21-59	2-43	-	-	-
Group Median	22	26	19	37	42	16	-	-	-
Advanced Group--									
N	5	5	5	-	-	-	5	5	5
Range	29-50	15-34	12-34	-	-	-	22-46	35-76	5-26
Group Median	43	23	22	-	-	-	29	40	17
Delayed Group--									
N	5	5	5	-	-	-	5	5	5
Range	11-28	12-20	10-40	-	-	-	2-42	4-33	6-51
Group Median	14	13	15	-	-	-	18	13	15
Total Group--									
N	19	19	19	-	-	-	32	32	32
Range	11-50	4-37	3-77	-	-	-	2-83	4-76	1-85
Group Median	27	17	20	-	-	-	27	29	17

* Scores represent ability levels calculated from observational data according to procedures outlined in the appendix for first transformation scores.

** Data base was 3-5 thirty minute observations/subject scheduled every three weeks.

*** Data base was 2-5 thirty minute observations/subject scheduled every four weeks.

**** Data base was 4-5 thirty minute observations/subject scheduled every three weeks.

- One subject was dropped from the analyses due to the lack of adequate data.

-- Data was collected on 39 subjects at various ages. For 19 subjects data were collected from 12-36 months. For 20 subjects data were collected from 24-36 months. The data presented in this table describes social behavior for the 5 most advanced, the 5 most delayed and the larger groups to the extent that data were available at a particular age

DISCUSSION

Adding up these results, I would say that we can be cautiously optimistic. The Bayley scores and those on the tests of cognitive abilities are somewhat disappointing but not bad. The scores in the area of language development, particularly those at twenty-six months, are promising; and, the scores in the area of social development are very promising. The reader should bear in mind that our staff is unanimous in believing that we failed totally in the case of one of our eleven families. We do not believe that the training program worked at all in affecting that family in its childrearing practices. In addition, we believe that the childrearing practices of that family were not naturally oriented toward the ones we were espousing. The child in question developed quite poorly in comparison to the other ten children, and yet we included his achievement data in with the entire group. The effect, of course, was to depress the group performance. Furthermore, it is unrealistic to expect to move the childrearing practices of high school graduates from the center of our society(in socioeconomic terms)to a level of performance equivalent to the very highest effectiveness we have seen to date in parents. For these reasons, the fact that our children did not always achieve as well as those who did beautifully in the preceding study does not depress us. In our new study, we are expecting to be somewhat more effective in assisting families to adopt the childrearing practices of apparently effective families and we therefore would like to see somewhat more impressive cognitive gains, although I do not believe it would be realistic to expect better gains in the area of social development.

CONCLUSIONS

The creation of a pilot program, embodying our best ideas about effective childrearing practices, has been reasonably successful. Of course, time and additional effort is the ultimate judge of such a statement. We have been forced to recognize that there are certain kinds of impediments to the ideal execution of such a plan. Some parents are considerably more overprotective than others and our recommendations that the child be allowed to explore, involve a certain degree of real risk. Some parents simply do not listen very well, and others try a bit too hard to please. Nevertheless, on the whole we are encouraged. We did get remarkable participation on the part of the families. We were inundated with compliments and expressions of gratitude during and after the program ended and the results, as far as we can tell, are truly promising.

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APPENDIX A

Criteria for the Selection of Families

Criteria for the Selection of Families

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Criteria for Elimination from the Study for Families With More Than One Child

1. If the mother's ethnic background is other than Jewish, WASP, Italian, Irish, or Spanish

2. If either parent was born someplace other than the U.S., Canada, or Puerto Rico (it doesn't matter where the grandparents were born).

3. If the family falls in either Level I or V on the Hollingshead-Redlich Scale.

4. If any language other than English is the primary language spoken in the home.

5. If there are more than three children in the family.

6. If there is any person who has an obvious, strong influence on the mother's child-rearing practices (e.g. mother or mother-in-law).

7. If the family does not have a child in the 2-5 age range.

8. (a) If Ammons score of older sibling is in 90-110% range, INCLUDE family in study.

   (b) If Ammons is in 80-90% or 110-130% range, TEST older sibling with Binet.

   (c) If Binet falls in the 90-110% range, INCLUDE family in study.

9. If the mother has not completed the eighth grade or has graduated from college with honors or taken any graduate courses, the family will be eliminated from the study.

10. If the infant's Bayley test score is below 90, the family will be eliminated from the study.

11. If the infant is handicapped in any way, either visually or auditorily, or if birth weight was under 5 lbs., exclude family from study.

Eligibility Form

Name of S: ____________________

Birthdate: ____________________

4 Month Bayley Score: ____________________

M's Education: ____________________

M's Quick Word Test Score: ____________________

Older Sibling's Name: ____________________

Birthdate: ____________________

Ammons Score: ____________________

developmental age ____________

chronological age ____________

90-110% range ____________

Binet Score: ____________________

Eligible: yes ____________ no ____________

If No, State Reason: ____________________

____

Preliminary Interview Form

Name of child: ____________________ Interviewer: ____________________

Birthdate: ____________________ Date of Interview: ______________

Background Information

I would like to ask you some background information. Do not feel obliged to answer any questions if you want to keep the information private.

1. Mother's name ____
2. Where were you born? ____
3. When were you born? ____
4. What is the last grade you completed in school ? ____________
5. What education have you had since high school? _____________

   What college did you attend? ___________________

   Did you receive any honors in college? _________
6. Do you presently work? __________________
7. Did you work before your children were born? ___________
8. Does anyone other than M take care of S on a regular basis? _______

   Who? __________________________

   When? _________________________
9. What is your cultural background?

   WASP ________________________

   Jewish ______________________

   Italian _____________________

   Irish _______________________

   Spanish _____________________

   Other ____

Preliminary Interview Form - p. 2

10. Are there any members of your family (e.g., parents or grandparents) who were not born in the U.S.? ____________

Where? ____________

Parents ____________ Grandparents ____________

At what age did they come to this country? ____________

11. Father's name ____________

12. Father's address ____________

____

13. Where was your husband born? ____________

14. When was your husband born? ____________

15. What is your husband's cultural background? ____________

WASP ____________

Jewish ____________

Italian ____________

Irish ____________

Spanish ____________

Other ____________

16. Who in your husband's family was not born in the U.S.?

Where? ____________

Parents ____________ Grandparents ____________

At what age did they come to this country? ____________

17. What is the last grade your husband completed in school? ____________

18. What education has he had since high school? ____________

What college did he attend? ____________

Did he receive any honors in college? ____________

Preliminary Interview Form - p. 3

19. What is your husband's occupation? ______________________

20. Do you have any plans to move within the next year? ___________

Where? ______________________

21. Do you take a vacation at a specific time each year? ___________

Where? ______________________________________

How long? ____________________________________

22. Does anyone other than your immediate family live with you? _____

Specify relationship ___________________________

23. Is any language other than English spoken in the home? _________

Which? __________________________

How frequently? ___________________

By whom? _______________________

24. What is your primary source of information about child-rearing practices?

Pediatrician ___________________

Dr. Spock ___________________

Television ___________________

Mother ___________________

Mother-in-law ___________________

Books ___________________

Other ___________________

25. Have you or any of your children been involved in a research project before?

When? ______________________

Where? _____________________

Preliminary Interview Form - p. 4

Medical Information

I would like to ask some general questions about the health of the members of your family.

1. Is anyone in the family presently receiving treatment or therapy? ____

   Who? ______________________________

   Why? ______________________________

   ____

2. Has anyone in the family been hospitalized during the past year (excluding birth)? ______________

   Who? ______________________________

   Why? ______________________________

   How long? ______________________________

3. Did S or M have any difficulty around the time of birth? ________

   ____

4. What was S's weight at birth? ______________________

5. Has S received any special medical treatment since he has come home from the hospital? ______________________________

   ____

6. Do you have a specific pediatrician that you use regularly? ______

   Name ______________________________

   Address ______________________________

If the answer is no:

Is there a clinic that you use regularly for medical care for your children? ____________

Name ______________________________

Address ______________________________

____

APPENDIX B

A Training Program to Assist People in Educating Infants

WORKING DRAFT
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BURTON WHITE'S PERMISSION

A Training Program to Assist People in Educating Infants*

by

Burton L. White
Barbara Kaban
Bernice Shapiro
Elizabeth Constable

Preschool Project

Harvard University
Graduate School of Education

March, 1974

*IMPORTANT:

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Section III - Home visit format and questions (8-17 months)

Section IV - Sample home visit reports (8-17 months)

The training package reflects the work we have done for the past eighteen months on translating hypotheses about effective child-rearing practices into a workable program for average families. Many of the details of the program (e.g., home visit questions) evolved as we worked with the pilot family group. The present training package reflects the curriculum which seemed to be most sensitive to the needs of the families and also represents the most effective methods for communicating our information.

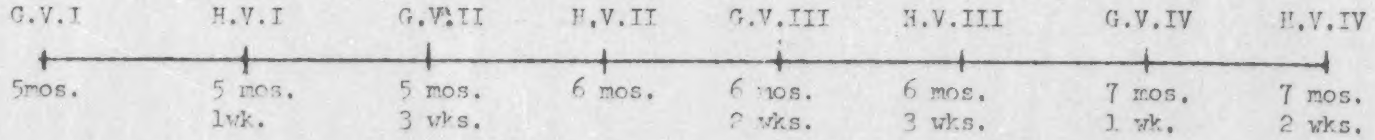
The pilot study consisted of two segments: the 5-8 month introductory period and the 8-17 month core period. The purpose of the 5-8 month period was to introduce the families to the fields of child development research and early education, and to the staff. Four group meetings were held at the university. Each group meeting was followed by a home visit (see Schedule I attached). The purposes of the home visit were to review the content of the group meeting and to begin to adjust our program to the individual circumstances of each family.

Outlines of the group and home visit activities during the 5-8 month period can be found in Section I. Sample tape recordings are also available.

During the 8-17 month period we concentrated on guiding each family toward patterning the daily fabric of the child's experience in a manner consistent with our hypotheses about effective child-rearing practices. Home visits occurred at two week intervals. After each visit, staff members collected evaluation and monitoring data. Group visits were used less frequently during this phase of the program (at 10, 13 and 16 months) (see Schedule II attached). Outlines of those group meetings may be found in Section II. Sample tape recordings of these sessions are available.

After each home visit the staff member wrote a brief summary report (see Section IV). Outlines of the home visit format during the 8-17 month period can be found in Section III. Sample tape recordings are available.

SCHEDULE I


G.V.I
5mos.
H.V.I
5 mos.
1wk.
G.V.II
5 mos.
3 wks.
H.V.II
6 mos.
G.V.III
6 mos.
2 wks.
H.V.III
6 mos.
3 wks.
G.V.IV
7 mos.
1 wk.
H.V.IV
7 mos.
2 wks.

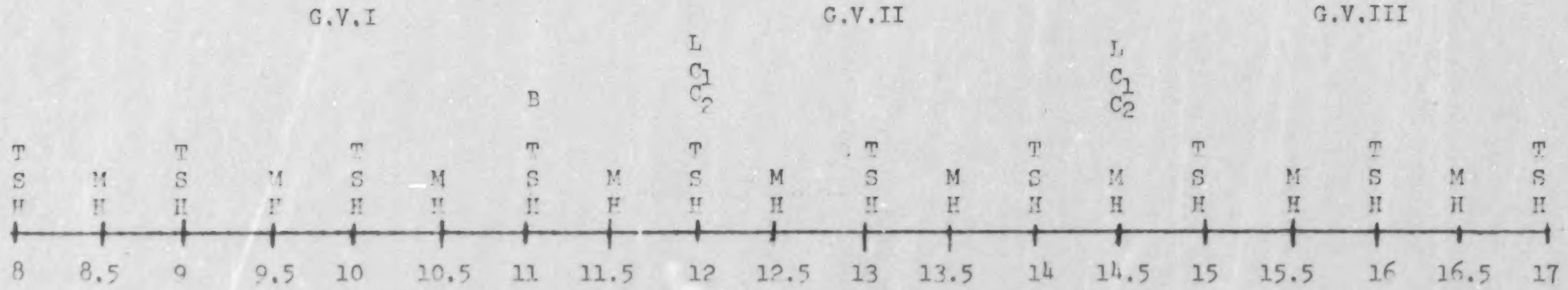
Chronological Age of Child (5-8 Months)

KEY:

G.V. = Group Visit

H.V. = Home Visit

SCHEDULE II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Chronological Age of Child (8 - 17 months)

KEY:

T = Collection of task data

S = Collection of social competence data

M = Collection of maternal behavior data

H = Home visit

G.V. = Group visit

B = Bayley Scales of Infant Development

L = Preschool Project Test of Receptive Language Ability

C_1 = Preschool Project Test of Sensing Discrepancies

C_2 = Preschool Project Test of Abstract Abilities

Appendix B
Section I

Group Session I
(5-8 months)

I. We have always begun formal education no earlier than six years of age, but children are learning many things from birth such as:

A. Language: The majority of ordinary language that most of us use is learned in the pre-school years.

B. Social Skills: A child learns how to get along with others through his early social relationships, especially through his relationship with his mother.

C. Learning to learn: Children may not be able to solve a great many problems by age three but they have learned the tools for solving problems.

D. Motivation: All babies are curious but this curiosity is often stifled by the time a child starts school.

II. Is it important to get good pre-school development?

A. A well developed child, one who likes himself and can get along with adults and other children, will probably do better at learning in school than the child who is overly shy or overly aggressive.

B. Remedial programs such as Headstart and Follow Through have not been very successful. Age three is probably too late to make up for poor pre-school development.

III. Do most children get good pre-school development?

A. It may be that the child who does well in school at age six was better endowed when he came into the world. It is not the case that every child is born equal.

B. The majority of children are considered "average" at age six. It may be the case that most of these children could have gotten more out of the pre-school years.

IV. Why don't we have children getting the best early experiences which might lead to the best early development?

A. Until recently, educators and psychologists did not pay much attention to the pre-school years. Consequently, little was known about the different experiences children are exposed to during the pre-school years and the differential effects they have on development.

V. New ideas in education

A. Public school systems are beginning to look downward to the pre-school years. California has recently made public school education available to four-year-olds.

B. The more we concentrate on the early years, the more people will start examining the effects of different homes on children. For example:

1. Dr. R. Heber studied the effects of placing retarded mothers' children in a day care center from infancy. When control subjects who had been raised in their homes by their retarded mothers were compared to the subjects who had received the experimental treatment, a significant difference in achievement was found at 45 months of age (the experimental group scored 33 IQ points higher).*

2. An Iowa judge placed the children of a retarded couple in a foster home.

VI. The ideas in early development which have had the greatest influence on theories of child development in the last few decades are:

A. Piaget: A Swiss psychologist who was interested in the growth of intelligence from birth to adolescence, including problem solving and the foundations of intellectual development.

B. Ethologists: They study animal life and its relationship to human behavior.

C. Freud: A psychoanalyst who studied emotional disturbances in personality development (major themes: the development of sexuality, and aggression).

VII. The Pre-school Project: the case for the special importance of the 8 to 16 month period.

A. We will try to tell you about development so that your child will get as much as possible out of the first years. We also feel you will find it a more interesting job and more fun by knowing more about children's development.

B. In our study of the differences between a group of children who were developing beautifully and a group who were developing poorly we found that most families do a fine job until a child gets to crawling age (approximately 8 months).

---

*Heber, R., and H. Garber, An experiment in the prevention of cultural-familial mental retardation. Paper presented at the second congress of the International Association for the Scientific Study of Mental Deficiency, Warsaw, August 1970.

C. At this stage families begin to vary importantly in the effectiveness of their child-rearing patterns. The difficulties appear to arise as the child begins to move around and, consequently, can get hurt or create clutter.

D. Mothers who handle the danger and extra work by restricting their children seem to have children who develop less well. Mothers who handle the danger by child proofing the house and are willing to do the extra work created by a child who is allowed to satisfy his curiosity seem to have better developing children.

VIII. Film - Object Permanence by Dr. J. McV. Hunt (Page 3a).

FILM REPORT

TITLE: Object Permanence

NARRATOR: Dr. J. Hunt

LENGTH: Approximately 35 minutes (black and white)

TOPICS COVERED:

This film illustrates Piaget's ideas about the development of object permanence in young children. The ages of the children seen range from a few weeks to approximately 18 months. The children are seen being tested in their own homes. The development of object permanence is illustrated by showing the children in logical age sequence, youngest to oldest.

INSTRUCTIONS Omit the first eight (approximately) minutes of the film. This is an introduction showing Hunt and Uzguris. It is too complicated and technical for this audience. Instead, give a brief introduction before screening, mentioning Piaget and the concept of object permanence. Show 10-15 minutes of the remainder of the film.

Group Session II
(5-8 months)

I. What is the Pre-school Project all about?

A. Most people seem to do a good job during the first 8 to 12 months. Most of the problems (e.g., feeding, sleeping and teething problems) don't seem to require any special knowledge in order to cope with them. Unfortunately, some children begin to lose ground during the second year of life.

B. The major predictors of future development are the child's ability to understand language and his social development.

1. The ability to understand language begins to develop at about 8 months of age and progresses until at about 3 years of age the child will be able to understand most of the language he will use in ordinary adult conversations. The ability to produce language varies greatly and is not as good a predictor of future development in the first three years.

2. Social development progresses through stages (e.g., no smiling at birth, indiscriminate regular smiling at 3 to 4 months, smiling more readily at mother at 4 months and stranger wariness at 7 to 9 months) and the relationship a child establishes with his mother become the bases for his future relationships with other adults (teachers) and children.

II. What does the Pre-school Project have to offer?

A. In the past, advice from "experts" has not been particularly dependable. There have been many changes of opinions regarding the best procedures for child rearing (e.g., toilet training).

B. The Pre-school Project studied the differences between a group of well developed children and a group of poorly developed children. We observed both kinds of children in their own homes during their second and third years. The difference in their development often seemed to be related to the way the mothers handled the children and structured their lives. The more effective mothers were less restrictive, were good at guessing what the children wanted and were also able to say "no" when the children were making unreasonable demands.

C. We will provide you with your own private consultant to talk to about your children.

III. There are two major ideas which help explain much of what babies do in this age range.

A. Babies at 8 months of age are very curious about the world around them and that curiosity is the source of learning and development. Mothers should encourage the development of curiosity since curiosity is the basis for learning.

B. Babies at 8 months of age are becoming very interested in their mother's behavior. They focus a lot of attention on her and learn to depend on her for the satisfaction of their needs, for protection, for affection and for guidance. How the mother responds has a great influence on how the baby learns to get along with other people later in life.

IV. Other ideas of significance are:

A. Babies are learning to control their bodies and progress from crawling, to cruising, to walking, to climbing, and to running.

B. Babies are very much interested in small detailed objects with moving parts (e.g., keys, hinges, balls).

V. The well developed child at three years of age exhibits the following abilities:

A. To get and maintain attention of adults
B. To use adults as resources
C. To express affection to adults
D. To express hostility to adults
E. To lead peers
F. To follow peers
G. To express affection to peers
H. To express hostility to peers
I. To compete
J. To prove oneself or show pride in one's accomplishments
K. Role play
L. Language development
M. To sense dissonance
N. To anticipate consequences
O. To deal with abstractions
P. To take the perspective of another
Q. To make interesting associations
R. To plan and carry out multi-stepped activities
S. To use resources effectively
T. To dual focus

VI. Film - Emotional Ties in Infancy, from Parent and Child Series, by Dr. Joseph Stone (Page 5a)

FILM REPORT

TITLE: Emotional Ties in Infancy

FILM MAKER: From the Parent and Child series: Vassar College, directed by Dr. Joseph Stone

LENGTH: 12 minutes (Black and White)

TOPICS COVERED: The main concepts illustrated in this film are attachment of the child to the primary caretaker and distrust of strangers.

Settings: (1) Attachment and temporary distrust of strangers is shown in a home-reared child.

(2) Three institutionally reared children are shown in an experimental situation. Varying degrees of attachment and distrust of strangers are illustrated.

AGE RANGE OF CHILDREN: 9-12 months

INSTRUCTIONS: Screen the entire film. Give a brief introduction before screening and define attachment and distrust of strangers, and the settings to be seen in the film. Also mention that the film was made for viewing by people working in institutions and that technical words are used in the film. After the screening, invite the audience to ask questions.

Group Session III
(5-8 months)

I. There are three ways of discussing goals for infants in the 8 to 16 month age range.

A. The dimensions of competence describe a well developed child at three years of age. They consist of the following abilities:

1. To get and maintain attention of adults
2. To use adults as resources
3. To express affection to adults
4. To express hostility to adults
5. To lead peers
6. To follow peers
7. To express affection to peers
8. To express hostility to peers
9. To compete
10. To prove oneself or show pride in one's accomplishments
11. Role play
12. Language development
13. To sense dissonance
14. To anticipate consequences
15. To deal with abstractions
16. To take the perspective of another
17. To make interesting associations
18. To plan and carry out multi-stepped activities
19. To use resources effectively
20. To dual focus

B. Four prerequisite skills for later learning are:

1. Language: Language understanding begins at approximately 7 to 9 months of age and proceeds rapidly to 3 years of age when a child will know most of the language he will use in ordinary adult conversations. The primary way to develop language well is for the mother to talk to the child at the right time and in the right way.

2. Curiosity: An infant is a very curious human being. Ideally that curiosity should get deeper and stronger but many mothers stifle curiosity because they are protecting the child and/or the house. If curiosity is stifled it can lead to the child's having undue interest in the mother or too little interest in the mother.

3. Learning to learn: Learning the alphabet or to count is not as important as learning the basic way to approach problems. Example: The first time a child does a puzzle it takes him a very long time. Each time he does that puzzle it will take him less time. When

he gets a new puzzle it will not take him as long as the first time he did the first puzzle because he has learned something about how to do puzzles.)

4. Social Skills and Attachment: A child needs to get through the first three years with a healthy attachment to his mother. The social patterns that he develops with his mother will serve as the basis for his social interaction with other adults and children.

C. A balance between the child's interest in his mother and his interest in exploring the rest of the world: Almost all children at 8 to 9 months have a balance between attachment to their mother and curiosity. Often by 2 years of age this balance no longer exists.

II. The activities that babies are primarily interested in during the 8 to 16 month period are:

A. Gross motor activities: One of the most compelling activities for young babies is mastering the use of their bodies; e.g., they progress from leg extension, to crawling, to pulling to stand, to cruising, to walking, to running, and to climbing.

B. Exploring the properties of objects: Children in this age range will spend a great deal of time exploring small, detailed, interestingly shaped objects and will be fascinated by the movement of objects (e.g., a ping pong ball bouncing on a wooden floor) and by objects with moving parts such as hinges or bottles and caps.

C. Learning about mother: The mother's reactions to the child's overtures and her response to his interest in the social and object world will greatly shape his behavior.

D. Learning about themselves: As the child reaches the age of 15 months, he begins increasingly to assert his independence and individuality. This period is often referred to as the stage of negativism (due to the child's frequent use of the word "no").

E. Language: Mastering the understanding and use of language is critical for the child's development. The language used by the mother must be meaningful to the child but mothers should not underestimate the amount of language a child can understand by 16 months of age.

III. Film - First half of Learning to Learn in Infancy, from the Parent and Child Center Series by Dr. Joseph Stone (Page 7a).

FILM REPORT

TITLE: Learning to Learn in Infancy

FILM MAKER: From the Parent and Child Center Series: Vassar College, directed by Dr. Joseph Stone

LENGTH: 30 minutes (Black and White)

TOPICS COVERED: The following topics are stressed in this film:

1. Learning begins early in life
2. The key to learning is curiosity
3. Young babies are explorers
4. Exploring leads to curiosity
5. Human relationships are essential to learning
6. Communication (that is, language) and imitation are important to learning

Settings: The above topics are illustrated showing children who are being reared in institutions. There are brief scenes showing home-reared children.

AGE RANGE: 6 weeks to 20 months

INSTRUCTIONS: Since this is a long film, the impact of the subject matter is conveyed more strongly if the film is divided into two 15 minute segments, and screened on separate occasions.
[Give a brief introduction mentioning the main concepts dealt with in the film. Encourage questions from the audience.]

Group Session IV
(5-8 months)

I. General guidelines for effective child rearing practices

A. Provide access to as much of the house as possible so that the child has the maximum opportunity to exercise his curiosity and explore his world.

B. Provide a wide range of materials for the child to explore. You don't have to spend a lot of money on toys. Children in this age range are fascinated by common household objects, e.g., plastic jars with covers, a big plastic container filled with smaller interesting objects, a baby-proofed kitchen cabinet filled with pots and pans or canned goods.

C. Spend at least half of your child's waking hours available to him. That does not mean you have to hover over him constantly but that you should be nearby to provide the attention, support or assistance he may need.

II. If you are available and your child is given access to a large area and a wide variety of materials, it is inevitable that he will make overtures to you. The following is a list of recommended ways to respond to your child's overtures:

1. Respond promptly as often as possible.
2. Respond favorably.
3. Make some effort to understand what the child is trying to do.
4. Set limits; do not give in to unreasonable requests.
5. Provide encouragement as often as possible.
6. Provide enthusiasm as often as possible.
7. Provide assistance as often as possible.

8. Use words as often as possible.
9. Use words children understand or words that are a little too hard for him.
10. Use words to provide a related idea or two.
11. Do not prolong the episode if the child wants to leave; the interchange will often last less than one minute.
12. Encourage "pretend" activities.

III. The above practices are related to when the child initiates interaction with the mother. Mothers we have observed usually initiate interactions with their children if:

A. The child seems bored; the mother will provide things for him to do.

B. The child is misbehaving; the mother will discipline him firmly and consistently.

C. The child is trying to do something new which may be unsafe; the mother will watch rather than stop him (e.g., stair climbing). Children are more careful than most people realize.

IV. We've been talking about things for mothers to do. The following is a list of practices for mothers to avoid.

A. Don't cage your child or confine him regularly for long periods.
B. Don't allow your child to concentrate his energies on you to the point where he spends most of his time following you around or staying near you, especially in the second year of life.
C. Don't allow tantrums.
D. Don't worry that your baby won't love you if you say "no" from time to time.
E. Especially from the middle of the second year when your baby may start becoming negative with you, don't try to win all the fights with him.
F. Don't try to prevent the baby from cluttering the house; it's an inevitable sign of a healthy curious baby.
G. Don't be overprotective; babies are more careful than you think.
H. Don't overpower him; let him do what he wants to do as often as possible.
I. Don't take a full-time job or otherwise make yourself largely unavailable to the baby during this period of his life.
J. Don't bore your baby if you can avoid it.
K. Don't worry about when he learns to read, count numbers, or say the alphabet. Don't even worry if he's slow to talk as long as he seems to understand more and more language as he grows.
L. Don't try to force toilet training. By the time he's two or over it will be easy to do.
M. Don't let your baby think the whole world was made just for him.

V. Film - Second half of Learning to Learn in Infancy, from the Parent and Child Center Series by Dr. Joseph Stone (Page 7a)

Home Visit Questions

5-8 Months

General Format of Questions

1. What has the Subject been doing lately?
2. Has there been anything new in the Subject's behavior since our last visit?
3. Is there anything you would like to bring up as a concern at this time?

Appendix B

Section II

Group Visit #1
(8-17* month phase)

Outline

A. Purposes of the group visits during the remainder of the project:

1. General purposes

Some activities are best done in the group setting, e.g., hearing parents remark about concerns that other parents are currently coping with, introducing group information on topics that help an individual family compare their own situation with that of others in a less confronting manner than the home visit format allows.

Any activity that can be successfully done in a group setting is cheaper in time and money that way: e.g., films can be shown much more easily to a group at the institution, than in homes.

In addition, fathers can be present more easily at evening group meetings.

2. Specific purposes

The relationship of the 8 to 17 month period to the 5 to 8 month period can be reviewed simultaneously for all parents.

The staff can present their summarized views on:

What's happening in the lives of the babies during the 8-11 month period.

What kinds of helpful information are appropriate for this kind of period.

What kinds of practices to avoid.

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* During September, 1973, as several babies reached 14 and 15 months of age, we noted that the onset of negativism seemed slightly later than we had expected it to be. In order to provide assistance to families in coping with negativism and in order to be able to observe the evolution of family adaptations, we extended the final time of the project home visit program from 16 to 17 months.

B. Recurring themes of concern to us as cited in home visit reports

1. Problems of hostility on the part of the next oldest child toward the baby.

2. The advisability of more appropriate language activities by mothers with babies.

3. A need for more effort by mothers to tune in on the baby's needs, interests and capabilities.

4. Over-restrictiveness by mothers of babies' exploratory efforts.

5. Over-protectiveness.

6. Over concern with the neatness of the house to the possible detriment of the baby's exploration.

7. A greater need to protect the house from the child.

8. A greater need to protect the child from the house.

9. A need for a better understanding of the relationships among: the child's need to explore and to practice crawling and climbing and the problem of providing maximum access to the living area.

C. The Movie - Abby's First Two Years

[We decided that this movie was not worth using, but we would recommend that another be used.]

D. Discussion and Final Comments

Group Visit #2
(8-17 month phase)

Outline

I. Introduction

Review of:

- A. Where Group Visit #2 fits into the total program.
- B. The agenda for the evening.
- C. Announcement of special feedback sessions when each child is 12-1/2 months old. Such sessions, in response to requests by three parents, will inform parents of patterns of test scores of their children and also of their own child-rearing behavior.

II. New Business - Emergents (10-12 Months)

- A. Walking.
- B. Climbing 12" units.
- C. A diversity of reasons for overtures to the Mother.
- D. Stabilization of patterns of undesirable behavior from older child to the Subject. Reduction of difficulties in this area.
- E. The Subject's tendencies to express anger at others.
- F. Outdoor - summer activities.
- G. Imitation of sounds and gestures.
- H. Teasing games with others.
- I. Self-feeding skills.
- J. The decline in use of playpens.
- K. The decline in stranger anxiety.
- L. The first clear attempts to ask another for help.
- M. Favorite places.
- N. Favorite activities
- O. Favorite objects.
- P. Dangerous tendencies, plus the danger of ingesting poisonous substances.

III. The Immediate Future

- A. The dawning of a sense of self.
- B. Negativism (15-21 Months).

IV. Review of Three Ways of Viewing Educational Goals for This Program

- A. Encouraging development of competencies listed earlier.
- B. The four major educational processes:
  1. Language.
  2. Social attachment.
  3. Curiosity.
  4. Learning to learn.
- C. An appropriate balance of interest by the child between interest in mother and exploration of the rest of the world.

V. Film - Four Families (First Half) - Margaret Mead, National Film Board of Canada

- A. Child-rearing in India.
- B. Child-rearing in France.

FILM REPORT

TITLE: Four Families

FILM MAKER: Canadian Broadcasting Commission

NARRATOR: Margaret Mead

LENGTH: (black and white) This film is in two parts, each 30 minutes in length. Part I shows two families, one in India and one in France; Part II shows families in Japan and Canada.

TOPICS COVERED:

An attempt has been made to select four comparable rural families. Each family is filmed in similar settings. These include scenes depicting preparation of food, eating, bathing, division of labor, and layout of the house.

Attitudes towards and methods of childrearing are also shown. These include punishment, roles of older children, toys.

The relationship between childrearing and national characteristics is stressed, and comparisons and contrasts are pointed out concerning the four countries represented.

AGE RANGE OF CHILDREN: Each family consists of a baby of approximately ten months, two older siblings and two parents. (The Japanese family also includes the children's paternal grandparents.)

INSTRUCTIONS: Screen both parts of this film on separate occasions. Give a brief introduction and allow time for discussion after the film.

Group Visit #3
(8-17 month phase)

I. Introduction

Review of:

A. The agenda for the evening.

B. The schedule for the next year re: cessation of home visits at 17 months and follow-up contact at 22-27 months.

II. Emergents (Subjects ranged in age from 8-14 months.)

A. All subjects do the following:

1. Imitate sounds and gestures.
2. Say 3-5 words.
3. Play games (e.g., peek-a-boo).
4. Express affection to adults (particularly the Mother).
5. Express anger to parents and siblings.
6. Climb up stairs; however, there is no report of any Subject being able to climb down stairs.
7. Experience minimal or no stranger anxiety.

B. Gross motor development

1. 8 of the 11 Subjects are presently walking unaided.
2. 10 of the 11 Subjects can climb 12 inches or more.
3. 7 of the 11 Subjects can ride wheeled bikes, horses, or ducks.

C. Language development

1. 10 of the 11 Subjects can identify 5 or more objects.
2. 9 of the 11 Subjects can follow simple instructions.
3. 5 of the 11 Subjects can follow instructions calling for a familiar sequence of behavior.

D. Procuring a service

1. 7 of the 11 Subjects ask for help by pointing.
2. 7 of the 11 Subjects ask for help by calling the Mother.
3. 4 of the 11 Subjects ask for help by leading the Mother by the hand.
4. 3 of the 11 Subjects ask for help by bringing the object to the Mother.

E. Self-feeding

1. 10 of the 11 Subjects use a spoon.
2. 9 of the 11 Subjects drink from a cup.

F. Restrictiveness

1. 9 of the 11 Subjects no longer use a playpen when indoors.
2. 8 of the 11 Subjects no longer use a playpen when outdoors.

G. Most frequently mentioned favorite objects:

ball (6 Subjects)
animals (6 Subjects)

H. Most frequently mentioned favorite places:

bathroom (10 Subjects)
outdoors (11 Subjects)

III. Recurrent themes perceived by staff - The following is an updated report on some of the recurrent themes that were emphasized earlier. The numbers in parentheses are the frequencies found at the last analysis of this data.

A. Problems with older child
no: 9 improved: 1 yes: 1 (4)

B. Sibling relationships
good: 7 competitive: 3 (1) aggressive: 1

C. Need for safety precautions
yes: 4 (4) no: 7

D. Mother is over-protective
yes: 2 (3) no: 9

E. Mother uses restrictive devices
yes: 2 (2) no: 9

F. Need for more language by Mother to Subject
yes: 2 (2) no: 7 no evidence in reports: 2

IV. Expected Emergents (15-36 months)

A. Negativism

B. Social abilities

1. To lead and follow peers.
2. To express affection and hostility to peers.
3. To compete with peers.
4. To praise oneself or show pride in one's accomplishments.

5. To involve oneself in adult role playing behaviors or to otherwise express the desire to grow up.

C. Nonsocial abilities
  1. Linguistic competence.
  2. The ability to sense dissonance or note discrepancies.
  3. The ability to anticipate consequences.
  4. The ability to plan and carry out multi-stepped activities.

V. Film - Four Families (Second half) - Margaret Mead, National Film Board of Canada
  A. Child rearing in Japan
  B. Child rearing in Canada

FILM REPORT

TITLE: Four Families

FILM MAKER: Canadian Broadcasting Commission

NARRATOR: Margaret Mead

LENGTH: (black and white) This film is in two parts, each 30 minutes in length. Part I shows two families, one in India and one in France; Part II shows families in Japan and Canada.

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AGE RANGE OF CHILDREN: Each family consists of a baby of approximately ten months, two older siblings and two parents. (The Japanese family also includes the children's paternal grandparents.)

INSTRUCTIONS: Screen both parts of this film on separate occasions. Give a brief introduction and allow time for discussion after the film.

APPENDIX [illegible]

SECTION III

Home Visit Format

8-11 months

I. Opening

Questions: How are things going?

Are there any complaints?

Is there anything about (next oldest child's name)'s behavior that you'd like to discuss?

II. Goals

A. Discussion of the emerging dimensions of competence

1. To get and maintain attention of adults

2. Language

3. To use adults as a resource

4. To express affection to adults

B. Prerequisite learnings of the pre-school period

1. Curiosity: Babies are very curious about the world around them and that curiosity is the source of learning and development. Ideally, curiosity should get deeper and stronger but many mothers stifle curiosity because they are protecting the child and/or the house. If curiosity is stifled it can lead to the child's having undue interest in the mother or too little interest in the mother.

2. Receptive Language: The ability to understand language begins to develop at about 8 months of age and progresses until at about 3 years of age the child will be able to understand most of the language he will use in ordinary adult conversations. The primary way to develop language well is for the mother to talk to the child, primarily when the child makes an overture to her. At that time the mother should use words the child will understand or words that are a little too hard for him, should provide a related idea or two, and should not prolong the episode if the child wants to leave. The interchange will often last less than one minute.

C. Balance of social and non-social interests: If a child is given maximum opportunity to exercise his curiosity and explore his world, and if his mother is available to provide the attention, support or assistance the child may need, the child will strike a good balance between his social and non-social interests.

III. Particular interests of the child

A. Gross motor activities: One of the most compelling activities for young babies is mastering the use of their bodies, e.g., they progress from leg extension, to crawling, to pulling to stand, to cruising, to walking, to running, and to climbing.

B. Exploring the properties of objects: Children in this age range will spend a great deal of time exploring small, detailed, interestingly shaped objects and will be fascinated by the movement of objects (e.g., a ping pong ball bouncing on a wooden floor) and by objects with moving parts such as hinges or bottles and caps.

C. Games, e.g., pat-a-cake, bye-bye, and peek-a-boo

IV. Practices for mothers to avoid

A. Don't cage your child or confine him regularly for long periods

B. Don't worry that your baby won't love you if you say "no" from time to time

C. Don't try to prevent baby from cluttering house, it's an inevitable sign of a healthy, curious baby

D. Don't be overprotective - babies are more careful than you think

E. Don't take a full time job or otherwise make yourself largely unavailable to baby during this period

V. Reactions to approaches made by child

A. Respond promptly

B. Respond favorably

C. Make some effort to understand what baby is trying to do

D. Set limits

E. Provide encouragement

F. Provide enthusiasm

G. Provide assistance as often as possible

H. Use words as often as possible

I. Use words child understands or a little too hard for him

8-11 months, cont.

- J. Use words to provide a related idea or two
- K. Don't prolong the episode if baby wants to leave
- L. Encourage pretend activities

VI. Mother-initiated interaction

- A. Provide things for baby to do if he seems bored
- B. Be a firm disciplinarian

VII. Recurrent themes

- A. Concerns about the older child
  - 1. Punishment/discipline/control
  - 2. Guidelines for preparing activities and materials
- B. The dimensions of competence
  - 1. Language development and the mother's role in language development
  - 2. Attention seeking behavior and the mother's response
- C. Child proofing and safety precautions
- D. Cross motor development
- E. Restrictiveness

VIII. Previews of Coming Attractions

Home Visit Format

11-14 months

I. Opening

Questions: How are things going?

Are there any complaints?

II. Goals

A. Discussion of the emerging dimensions of competence

1. Language

2. To express affection and hostility to adults and siblings

3. To use adults as resources

4. To prove oneself or show pride in one's accomplishments

B. Prerequisite learnings of the pre-school period

1. Language: The ability to understand language begins to develop at about 8 months of age and progresses until at about 3 years of age the child will be able to understand most of the language he will use in ordinary adult conversations. The ability to produce language varies greatly and is not as good a predictor of future development in the first three years. The primary way to develop language well is for the mother to talk to the child, primarily when the child makes an overture to her. At that time the mother should use words the child will understand or words that are a little too hard for him, should provide a related idea or two, and should not prolong the episode if the child wants to leave. The interchange will often last less than one minute.

2. Learning to learn: Learning the alphabet or to count is not as important as learning the basic way to approach problems. Example: The first time a child does a puzzle it takes him a very long time. Each time he does that puzzle it will take him less time. When he gets a new puzzle it will not take him as long as the first time he did the first puzzle because he has learned something about how to do puzzles.

C. Balance of social and non-social interests: If a child is given maximum opportunity to exercise his curiosity and explore his world, and if his mother is available to provide the attention, support or assistance the child may need, the child will strike a good balance between his social and non-social interests.

III. Particular interests of the child

A. Learning about mother: The mother's reactions to the child's overtures and her response to his interest in the social and object world will greatly shape his behavior.

B. Exploration and mastery of object world: Provide a wide range of materials for the child to explore and master. You don't have to spend a lot of money on toys. Children in this age range are fascinated by common household objects, e.g., plastic jars with covers, a big plastic container filled with smaller interesting objects, a baby-proofed kitchen cabinet filled with pots and pans or canned goods.

IV. Practices for mothers to avoid

A. Don't allow your child to concentrate his energies on you to the point where he spends most of his time following you around or staying near you.

B. Don't overpower him, let him do what he wants to do as often as possible.

C. Don't bore your baby if you can avoid it.

D. Don't let your baby think the whole world was made for him.

V. Reactions to approaches made by child

A. Respond promptly

B. Respond favorably

C. Make some effort to understand what baby is trying to do

D. Set limits

E. Provide encouragement

F. Provide enthusiasm

C. Provide assistance as often as possible

H. Use words as often as possible

I. Use words child understands or a little too hard for him

J. Use words to provide a related idea or two

K. Don't prolong the episode if baby wants to leave

L. Encourage pretend activities

VI. Mother-initiated interaction

- A. Provide things for baby to do if he seems bored
- B. Be a firm disciplinarian

VII. Recurrent themes

Home Visit Format

14-17 months

I. Opening

Questions: How are things going?

Are there any complaints?

Is there anything about (next oldest child's name)'s behavior that you'd like to discuss?

II. Goals

- A. Discussion of the dimensions of competence
    - 1. Language
    - 2. To express hostility to adults
    - 3. To sense dissonance
    - 4. To anticipate consequences
    - 5. To deal with abstractions
- B. Prerequisite learnings of the pre-school period
    - 1. Learning to learn
- C. Social skills
    - 1. Emerging negativism

III. Particular interests of the child

- A. Learning about themselves (emerging negativism)
- B. Exploration and mastery of the object world

IV. Practices for mothers to avoid

- A. Don't allow tantrums

B. Especially from middle of the second year when your baby may start becoming negative with you, don't try to win all the fights with him.

C. Don't worry about when he learns to read or count numbers or say the alphabet. Don't even worry if he's slow to talk as long as he seems to understand more and more language as he grows

D. Don't try to force toilet training

V. Reactions to approaches made by child

A. Respond promptly

B. Respond favorably

C. Make some effort to understand what baby is trying to do

D. Set limits

E. Provide encouragement

F. Provide enthusiasm

G. Provide assistance as often as possible

H. Use words as often as possible

I. Use words child understands or a little too hard for him

J. Use words to provide a related idea or two

K. Don't prolong the episode if baby wants to leave

L. Encourage pretend activities

VI. Mother-initiated interaction

A. Provide things for baby to do if he seems bored

B. Be a firm disciplinarian

Home Visit Questions

8-11 months

A. Standard Questions (to be asked by each visitor routinely at the beginning of the visit.)

1. Favorites
    - a. What are S's favorite activities?
    - b. What are S's favorite places?
    - c. What are S's favorite objects, toys?
2. Emergents
    - a. What new behaviors has S shown since our last visit?
3. Concerns
    - a. Is there any specific cause for concern on your part in terms of S's behavior?
    - b. Is there anything you want to discuss?

B. Particular Questions (Relevant to S's age)

1. Motor Abilities
    - a. Does S cruise, pull to a stand, walk with help?
    - b. Does S use the playpen at all?
    - c. How high can S climb?
    - d. Has the living area been adequately childproofed and made as safe as possible for this age infant?
2. Social Abilities
    - a. Does S play games with you?
    - b. Does S show stranger anxiety?
    - c. Does S show affection and/or anger to you?
    - d. Does S imitate sounds or gestures?

3. Daily Scheduling and Care

    a. What is S's general pattern of eating and sleeping at this age?

    b. Does S drink from a cup? Eat finger foods?

4. Language

    a. What particular sounds does S use?

C. Individual Family Concerns

1. Are there any particular problems you would like to discuss?

Home Visit Questions

11-14 months

A. Standard Questions (to be asked by each visitor routinely at the beginning of the visit.)

1. Favorites

   a. What are S's favorite activities?

   b. What are S's favorite places?

   c. What are S's favorite objects, toys?

2. Emergents

   a. What new behaviors has S shown since our last visit?

3. Concerns

   a. Is there any specific cause for concern on your part in terms of S's behavior?

   b. Is there anything you want to discuss?

B. Particular Questions (Relevant to S's age)

1. Development of Social Abilities

   a. Does S indicate when he needs help? How?

   b. Does S show affection to adults? To siblings?

   c. Has stranger anxiety subsided?

   d. Does S show anger to M or siblings?

2. Language

   a. Does S use sounds and words to indicate objects?

3. Motor Abilities

   a. How high an object can S climb?

   b. Does S walk unaided? Since when?

   c. Are there any safety or childproofing concerns that you want to discuss?

4. Daily Scheduling and Care

   a. What is the general pattern of eating, sleeping and outings now that S is ____ months old?

   b. Does S feed himself, use a cup, a spoon?

   c. What are S's food preferences?

C. Individual Family Concerns

1. Are there any particular problems you would like to discuss?

Home Visit Questions

14-17 months

A. Standard Questions (to be asked by each visitor routinely at the beginning of the visit.)

1. Favorites

   a. What are S's favorite activities?

   b. What are S's favorite places?

   c. What are S's favorite objects, toys?

2. Emergents

   a. What new behaviors has S shown since our last visit?

3. Concerns

   a. Is there any specific cause for concern on your part in terms of S's behavior?

   b. Is there anything you want to discuss?

B. Particular Questions (Relevant to S's age)

1. Negativism

   a. Is S throwing his weight around?

   b. Does S seem fascinated with the word no?

   c. Does S test limits, such as by disobeying for the sake of disobeying?

2. Language

   a. Does S use any new words?

3. Motor Abilities

   a. Can S climb all things in the house?

   b. Can S ride wheeled toys?

   c. Does S go outside to parks or gardens?

4. Development of Self

   a. Does S show hurt feelings?

   b. Does S initiate new activities with older siblings and with parents?

5. Safety

   a. Has the problem of accidental poisoning been adequately dealt with? [National Statistics]

C. Individual Family Concerns

1. Hostility of older sibling toward baby - re-emergence of conflict with siblings?

Appendix B

Section IV

Home Visit # 1
(5-8 month period)

Observer: B.W.

Date: 11/15/72

Age: 5-1/2 months

Comments about 1st group meeting: It was fine, "not over my head." She tried a few exercises from the film.

Content: The plan was to introduce the dimensions of competence. Discussion was achieved on the following three only:

1) getting and maintaining attention

2) expressing hostility and affection ["saying friendly or unfriendly things"]

3) role-play ["make-believe"].

Special topics: Mrs. X has had pressure to toilet-train her older child very early (one year or so), from her parents or in-laws. She was much relieved when I supported her resistance to the idea.

Comments of E:

1) This mother talks a great deal and often about the older child. In particular, she believes she was too harsh and punishing with him.

2) The older brother is alert, asks many questions and seems to want a lot of attention.

Home Visit #3
(5-8 month period)

Observer: B.K.

Date: 1/5/73

Time: 11:30

Age: 7 months

Setting: Mrs. X, PM_3, and Subject were home. The radio and the TV were on. We were all in the kitchen which is a large, comfortable room. The children have a lot of toys and playing space available to them in the kitchen.

General Comments:

It is very hard to get a word in once Mrs. X begins talking. She is more interested in the opportunity to express her concerns than in the subject matter we are presenting. I was supposed to cover the Group II Session but she found it almost impossible to sit and listen. I got through the barest outline and then let her talk.

Specific Topics Discussed:

1. To gain attention - Mrs. X related this more to PM_3 but she said she really found it useful to try and think why he is doing something. She said she and her husband are having discussions now about what the children do and why. She is trying to get her husband to be less strict with PM_3.

2. Restrictiveness - Mrs. X contrasted PM_3 and S in that PM_3 was kept in his high chair or crib most of the time. S was on the floor or in his walker and free to roam while I was there. She feels that S is much more curious and alert than PM_3 was at this age.

3. Distraction - Mrs. X commented that S cries when she takes something away from him. I suggested that if she offers him something else first she will probably have less difficulty taking something away. I suggested that this type of redirection of S's interest might be useful with PM_3 as well.

Home Visit #1
(8-17 month period)

Observer: B.K.
Date: 2/23/73
Time: Noon
Age: 8 months, 3 weeks

Setting: S was being fed when I arrived. PM_3 was upstairs taking a nap (he joined us after about 30 minutes).

Discussion Points:

1) Language - I explained and demonstrated how to accompany S's interest in objects and toys with brief verbal statements.

2) PM_3's attention span.

General Comments:

1) S is able to spend a lot of time by himself exploring objects. Mrs. X has arranged the environment nicely and allows him a lot of freedom.

2) Mrs. X talks to S a lot but not always appropriately. (She commented that when Dr. White was in her house she felt self-conscious and didn't talk to S).

3) I told her not to expect PM_3 to spend a long time (1-2 hours) with any particular activity. That 10-20 minutes is a long time for a child his age. She found this reassuring.

4) S enjoys having PM_3 around and watches his brother constantly.

Data: A task social observation was done.

Home Visit #4
(8-17 month period)

Observer: B.K.
Date: 3/22/73
Time: 10 a.m.
Age: 9 months, 3 weeks

Setting:

Mother, PM, and Subject were home. PM was watching Sesame Street and S was playing on the kitchen floor. He seemed tired and cranky today.

Topics:

1. Language - Mrs. X is labeling objects for and talking to S in a consistent and effective manner. I told her that her language was appropriate and frequent enough and encouraged her to continue.

2. Curiosity - S is "getting into everything." I explained that we were happy to hear this since it meant that he was curious and allowed to satisfy his curiosity through exploration. I encouraged this, although reiterating the fact that she can and should set reasonable limits.

3. Gross motor development - S is pulling himself up to a standing position and tries to climb on furniture, etc. Mrs. X noted this and expressed concern about his safety. I encouraged her to allow him to try.

4. Task and social observations were done.

5. Mrs. X said an evening meeting is fine and that her husband would like to attend.

General Comments

1. Mrs. X seems to be having fewer problems with PM.

2. Mrs. X has really begun to tune in to S's behavior and look at what he is trying to do. I was very impressed today with her language and with her ability to correctly perceive S's interest or needs. Our group discussions and home visits have definitely altered Mrs. X's behavior with her child.

3. Mrs. X and her husband are concerned that S might become a "brat" because he's allowed too much freedom, etc. ("We're doing things very differently than what we did with PM"). I stressed the fact that they should set limits and that the children we've observed were not "brats" and, in fact, were easier to get along with, etc.

Home Visit No. 5
(8-17 month period)

Observer: B. S.

Date: 4/9/73

Age: 10 months, 1 week

Comments:

This home visit was the occasion for a first trial of the revised Adult Assessment Scales utilizing the 5" rule and incorporating the language guidelines. E. C. and I felt it went poorly due to the large amount of double coding of abilities and language and the necessity for shifting attention from category to category when there is a lot of interaction. Worst of all, Mrs. X spent the full 25 minutes feeding S and this made the occasion rather a biased one for our purposes. Since she timed the ending of the meal with the ending of our observation, and there was a friend of hers present, this was not an ideal observation in terms of naturalness of behavior captured.

Mrs. X was rather more controlling than usual today, going so far as to control every morsel of pizza that passed S's lips, encouraging him to bite (his food) repeatedly, and trying to keep him neat and clean. This woman has a neatness hangup. She related a story of how she held S on her lap for one hour before going to a birthday party so he would stay clean, and then held him on her lap for 3 hours while there because no baby chair was available. In addition she bemoaned her "dirty" floors (they are nearly spotless) and in general is compulsive on this score. She does try to let S wear old clothes at home so he will get a chance to crawl about, but mentioned plans for restricting his access to the kitchen and den as he gets more mobile. She claimed one of her problems was with "discipline"* and getting S to understand what was "off limits" (the TV, the bathroom, etc.). Mrs. X will need additional help overcoming her compulsive restrictive tendencies. Otherwise things are going well and S appeared content and pleased.

Topics Covered:

Access to parts of house

Discipline and control

Childproofing

*Communication and language - S's efforts to verbalize

Sibling relationships have improved and things are going well.

Home Visit No. 8
(8-17 month period)

Observer: B. K.

Date: 5/17/73

Age: 11 months, 2 weeks

Mrs. X was getting PM dressed to go out in the backyard. He spent the entire visit outside, playing happily. M reports that he spends most of his time outdoors and gets upset when it is time to come in. The baby practiced climbing but was not particularly interested in toys. His favorite household object is a spoon. S also gets to go out in the afternoons and M reports that he plays happily and doesn't seem as interested in her when he is outside. M was very pleased that he was playing in the sand box but not eating the sand.

Topics discussed

1. Gross motor development - S can climb up on a kitchen chair.
2. Imitation - S imitates simple actions and sounds.
3. Language - S doesn't say any words but seems to try to say G.T., Ma, and Da-da. M reports proudly that he understands the word "nc."
4. Feeding - S can feed himself using his fingers. He is less successful with a spoon but does get opportunities to try. M doesn't encourage the use of a cup because she feels it is easier to use a bottle.
5. Medical problems - S has an appointment to see a foot specialist next week. His feet turn in very badly and the pediatrician recommenced a specialist.

General comments

1. Things seem to be fine here.
2. M said she wants to wait a couple of years before she has another baby - but that they definitely want as least one more.
3. M is thinking about nursery school for PM for next year.

Home Visit # 5
(8-17 month period)

Observer: E. C.

Date: 5/31/73

Time: 9:00 a.m.

Age: 12 mos.

Setting: In kitchen with M and S. PM (3-1/2) also at home, watching TV and occasionally coming to the kitchen to check on the proceedings there.

Coverage:

Gross Motor Development:

1) climbs onto couch (about 24"), stairs

2) sometimes walks aided

3) cruises

4) prefers crawling

5) S has been to a specialist about his feet - has had X-rays, etc. Mrs. X hopes to get the results next week.

Favorite Place: playing outside in yard; likes the sand box and swing.

Sibling Relationship: According to Mrs. X, "fantastic." However, I did observe that PM does occasionally push S.

Imitation: sounds and gestures.

Stranger Anxiety: S is not completely over his fear of strangers. M says he is "coming around."

Playpen:

1) is still used for short periods when M is particularly busy.

2) Also, M has erected 2 gates: on a kitchen door which leads into the living room and one to prevent him going up the stairs.

Interest in Toys: Mrs. X reported that S is no longer so interested in toys, but prefers to crawl around and explore the house and household objects.

Home visit #10

(8-17 month period)

Observer: B.W.
Date: 6/4/73
Age: 1 year 3 days old

Setting

At home in the kitchen with many, many toys on the floor, etc. and a gate to the living room and stairs.

Coverage

Favorite Objects: a large metal spoon!

Problems: Very few.

a) Subject has begun to test authority. He will repeat forbidden approaches and when admonished, he dissolves into tears.

b) Lately, he gets up in the middle of the evening occasionally.

Motor Development: He cruises, and climbs a great deal (12" unit). Two nights ago, under supervision, he climbed all the way to the third floor. He has taken a few steps unaided.

Stranger Anxiety: He still shows some, although it is clearly decreasing.

Anger: "He has a temper now." "He beat up on his brother."

Favorite Places:

a) the kitchen

b) the windows

c) back yard

He likes the bathroom and the foot of the stairs, but is forbidden both.*

Language: Not much happening. He knows his name, "no," and perhaps "Give me a kiss."

Access: Now that there is a gate on the stairs, he can use all of the apartment except the bathroom, unless he is very dirty. If so, he cannot use the livingroom. He goes outside to the back yard a great deal.

Asking for Help: Not sure.

Showing Pride: No.

PM's behavior to Subject: Somewhat more roughhousing, but generally very good.

*Balance of interest between Mother and the rest of the world. Fine.

Home Visit No. 11
(8-17 month period)

Observer: B. S.

Date: 6/27/73

Time: 11:00 a.m.

Age: 12 months, 3-1/2 weeks

Today we reported to Mrs. X on S's progress to date and she was quite pleased with the results. We visited during a time that there are several house guests, a sister-in-law was present during our discussion and joined in at the end of the visit for an additional half-hour chat about her work as a public health nurse in California with Mexican families. Mrs. X was quite proud of S's achievements and requested that I repeat some of the comments her sister-in-law had missed.

(The visit took place the morning after a group visit and Mrs. X reported that she and Mrs. Y spent two hours talking in the parking lot after the meeting ended!)

I. Among other points covered were the following:

1. S will be showing increased non-compliance soon and this should be realized.
2. S has responded favorably to all the guests and is over stranger anxiety.
3. He shows anger when removed from the area at the bottom of the stairs, as well as when a toy or object is removed.
4. He enjoys bouncing on a riding horse in his bedroom.
5. He is very mother oriented today, making repeated overtures for attention, and crying occasionally (could be the guests?).
6. S's ability as a climber has been noted, he climbs stairs, chairs, and the chain link fence.

II. 12-1/2 month feedback report to M

Tests

Dissonance - Level 0
Bayley 6 mos. - 100 motor, 100 mental
10 mos. - 106 motor, 104 mental
Language 12 mos. I - 12 mos. level
Abstract Abilities 12 mos. VI - 15.5 mos. level

Home Visit No. 11

Language

1. knows some names but not classes of own toys (11).
2. understands simple, familiar instructions requiring only a single discrete change in behavior (4).

Abstract Abilities

1. visual pursuit and object permanence - can search when there are invisible displacements in a series.
2. construction of object in space - understands relationships, equilibrium, gravity, detours, absence (brother hides toys under chairs - he's been trained).

Home Visit Highlights

1. Improvement noted in PM's behavior in mother's handling of him - more realistic.
2. Increase in freedom with S - less restrictiveness noted.
3. Mrs. X well tuned-in to S's overtures, although he makes relatively few.
4. Curiosity, exploration, and self-motivated play have all been progressing nicely.
5. Dimensions of competence have progressed well, with language input showing the most improvement. Mrs. X has shown a marked ability to correctly perceive S's interests and needs.
6. S's love of physical mobility; good peer relationships; imitation and games; outdoor play; self-feeding; growth of temper; testing authority; reduced stranger anxiety.

Social Instrument

Most frequent categories (5 observations)

*Compliance	22
Emotional Resource (comforting, reassurance)	15
*Non-Compliance	12
Attention (Pos)	9
Affection A	9
Resource A	8
Imitation A	6

Imitation P discussed - beginning now

Follows P	15	(all on one day)
Affection P	2	(all on one day)

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*Good balance

Home Visit No. 11

More occurs than was noted on forms. S beginning to hit PM - but PM doesn't hit back.

Home Visit #13
(8-17 month period)

Observer: B. W.

Date: 7/27/73

Time: 3:05 p.m.

Age: just under 14 mos.
(b.d. 6/1/72)

Tape available

Setting: In kitchen, children upstairs resting

Coverage:

1. GV - M enjoyed it

2. S is now affectionate

3. He "recognizes certain people" e.g. - crazy about F In-laws at house in Maine - he's very sociable.

4. Stranger anxiety - shyness in second year.

5. Lots of sounds but few that can be understood.

6. He had a big fight with PM a week ago, but generally they get along very well.

7. Climbs anything in the house - house is safety proofed.

8. Access to house - he has a few "no" areas, e.g., the bar and bathroom but most of the house is available to him.

9. Teething

10. Negativism - doesn't like to have things taken away from him.

11. Thinking - starting now, memory growing.

12. Clings to M when he needs a nap - otherwise plays well by himself.

13. Discipline - M feels more comfortable with S than with PM

14. TV - color and music, cartoons, commercials; but not usually for very long (only 1 time to date)

15. Times are great except on long rides in car or up country where he had to be confined to a playpen for many hours.

16. Discussed movie on attachment in connection with playpens. A 14-month-old should be upset when kept in a playpen for more than one hour.

17. Anything puzzling or need talking about? - No.

18. Loves to climb stairs, but can only come down 3 or 4 steps.

Comments: All is well.

Home Visit # 14
(8-17 month period)

Observer: E. C.

Date: 8/20/73

Time: 9:30 a.m.

Age: 14-1/2 mos.

Setting: In the yard: M,S and PM

Coverage:

Gross Motor Development: S began walking unaided the day prior to this visit. He seems to be enjoying practising this new skill. M says he climbs a lot; climbs up stairs but not down.

Language Development: understands many instructions. Says "dadda," "mumma," "D-D" [illegible]. Babbling a lot.

Anger: M reports S's temper is being exhibited more often of late. e.g., when he is interrupted in his activities; if an object or toy is taken away from him.

Discipline: gets "spanked" for hitting his brother or when he hits his mother. Whines and fusses when M says "no" sharply.

Asking for help: points sometimes, makes noises, hangs on the table with his hand; whines, says "Mumma" and "Dadda."

Sibling relationship: good; M reports very little competition between the two boys.

New Interest: Animals - particularly dogs. (The Xs are considering buying a dog.)

Favorite toy: ball
Favorite place: yard
Favorite activity: walking; climbing the stairs

General Comments: Everything seems to be going along well in this home. Mrs. X was eager to express how pleased she is with being part of this study. She says she has learned a lot and now is able to observe and understand many of the things we have been talking about over the last few months. She is sorry that the study will soon be ending.

Home Visit # 17
(8-17 month period)

Observer: B. S.

Date: 9/25/73

Time: 1:00 p.m.

Age: 15-3/4 mos.

Setting: In kitchen with M, PM, and PM's mother.

Coverage:

The most recent news about the X household concerns Mrs. X's recent hospitalization for four days for removal of an abcess. As well, her husband has been laid off his job again and they are in some financial difficulty since the hospital insurance may not cover her recent surgery. Mrs. X is also dieting and has lost 15 lbs., intending to continue for another 10 lbs. or so. She also has bronchitis.

Despite the sound of the above notes, she was in good spirits and the visit went rather well. She reported that S is doing well and PM seemed fine, despite an accident involving wetting his trousers which she handled rather harshly. There were friends visiting during my visit, and S had recently awakened from a nap and spent most of the time eating in his highchair.

Motor Abilities: S walks well, has started to run and can climb out of his crib now. He enjoys riding toys.

Negativism: The onset of negativism has occurred, and S flaunts parental authority when a direct request is made of him. He doesn't respond to swats on the bottom and hits back when struck by M. He does show hurt feelings when yelled at by his father.

Family Planning: Mrs. X stated her intention to have no more children since two friends' babies were recently born with hyaline membrane disease.

Favorite Place: Bathroom (door is kept locked), where he recently climbed into a tub of water fully clothed; also yard.

Favorite Activity: Eating; it's his favorite kind of fun, preferred over toys.

Favorite Object: His brother's motorcycle rider.

New Activities: Watching TV - especially cartoons and Sesame St. He watches his brother to see when to laugh [This emergent should be noted for some of our other subjects.]

Home visit # 17 (8-17 month period) cont.

Language: He understands everything but says relatively few words clearly, although he babbles in a sentence-like form rather often.

Safety: The kitchen chairs tip over easily when he climbs up and leans over. He does not attempt to walk down stairs yet. He has climbed out of crib onto his jumping horse and this is a potential danger early in the morning. He is also able to descend from his highchair alone if M allows it.

Comments: Mrs. X seems to be doing well with both children, although she is still inclined to be a bit harsh with PM. It will be interesting to see how hard she comes down on S during this present phase of assertiveness.

Home Visit # 19
(6-17 month period)

Observer: E. C.

Date: 10/19/73

Time: 9·30 a.m.

Age: 16-1/2 mos.

Coverage:

Mrs. X reports several changes in S's behavior during the last couple of weeks. Negativism has increased. He is asserting himself much more and testing limits. Mrs. X says distraction works most of the time. She also tries smacking his hand in an attempt to discipline. She freely admits this method does not work most of the time. We discussed various methods of discipline and also the need for firmness and consistency. Sibling problems have emerged again. Most of the difficulties are initiated by S, not PM. He hits PM without provocation, competes for M's attention, copies almost everything PM does, fights over toys, etc. PM will often come to M for help in these situations rather than fighting back. In the area of language development, progress is good. His vocabulary includes "who's there," "come in", "D.D.", "Mama", "Dada", "pupi" (puppy), "car".

Favorite places include outside and living room (where there are many forbidden objects within his reach); favorite activity is dancing; favorite thing is the puppy. He also climbs everything.

S shows hurt feelings usually only towards father. S does initiate games.

An emergent mentioned by M is that S is now trying to do things like dressing and undressing himself.

General Comments:

S is a very appealing child, despite negativism. Mrs. X seems to be handling and surviving negativism quite well. PM seems to be bearing the brunt of a lot of S's negativistic behavior. It will be interesting to watch the sibling relationship here.

Home Visit # 20
(8-17 month period)

Observer: B. K.

Date: 10/31/73

Time: 10:00 a.m.

Age: 17 mos.

Setting: In the kitchen: M and S

Coverage:

Since this was the final visit, I intended to give M a full report on S's 14-1/2 mos. test scores and the observational data. However, M was totally preoccupied with problems concerning the teenagers in her community and spent most of the time talking about her role as "pseudo parent" to a group of approximately 8-10 adolescents. Each time I tried to bring the discussion back to S, she listened politely for about one minute and then turned the conversation back to the original topic.

Basically, M is not having much difficulty with S at this point in time, and is quite comfortable with his progress. I did manage to report that he was scoring at or above the group median on the Preschool tests at 14-1/2 mos. and reviewed the tentative schedule for the follow-up study (20-27 mos.). During our conversation, S was actively engaged in exploration of toys and household objects and gross motor mastery. He showed some signs of negativism (i.e., testing behavior) which M handled easily and firmly. M reported that his favorite activity was "getting into everything", but that he showed no consistent preference for one toy or household object.

Everything seems fine here.

APPENDIX C

Adult Assessment Scale

Adult Assessment Scales[*]

by

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March, 1974

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[*] A Manual for the Adult Assessment Scales is available at the Preschool Project.

Preliminary Forms

Adult Assessment Scales

Name:

Date:

Observer:

Directions

The Adult Assessment Scales consist of the following:

1. Checklist I - Child-Adult Interaction, Subject initiated
2. Checklist II - Child-Adult Interaction, Adult initiated
3. Rating Scale I - Distal Adult Effects
4. Rating Scale II - Dimensions of Competence

An adult assessment visit will be 30 minutes in length. During this period the observer will check off behaviors as they occur listed in Checklist I - Child-Adult Interaction (Subject initiated) and Checklist II - Child-Adult Interaction (Adult initiated). The Rating Scale I - Distal Adult Effects and Rating Scale II - Dimensions of Competence will be completed on the same day but after the observer has left the home. All four forms will be completed for each adult observation.

Setting at beginning of observation

Time at beginning of observation

Checklist I
Child-Adult Interaction, Subject Initiated
(Preliminary Form)

Episode at:								
Subject's purpose:								
Number of seconds:								
1. Timing and direction of Adult's response								
a. immediately								
b. delayed								
c. no response								
d. rejects								
2. Perceptions of Subject's need								
a. accurately								
b. partially								
c. not at all								
3. Level of difficulty of words								
a. appropriate								
b. too complex								
c. too simple								
d. babytalk								
e. none								
4. Provision of related ideas								
a. yes								
b. no								
5. Complexity of language								
a. complex sent. > 3"								
b. phrase/sent. < 3"								
c. one word								
d. none								
6. Provision of encouragement, reinforcement of enthusiasm								
a. yes								
b. no								
c. inappropriate								
7. Teaching realistic limits								
a. yes								
b. no								
c. inappropriate								
8. Satisfaction of Subject's needs								
a. yes								
b. no								
c. partial								

Checklist II
Child-Adult Interaction, Adult Initiated
(Preliminary Form)

Episode at:			
Number of seconds:			
I. Purpose of the interaction			
a. stimulating child			
b. control-positive			
c. control-negative			
II. Emotional tone of the interaction			
a. positive			
b. negative			
c. neutral			
III. Content of interaction			
Episode at:			
Number of seconds:			
I. Purpose of the interaction			
a. stimulating child			
b. control-positive			
c. control-negative			
II. Emotional tone of the interaction			
a. positive			
b. negative			
c. neutral			
III. Content of interaction			

Rating Scale I
Distal Adult Effects
(Preliminary Form)

A. Design of the home

1. Procurement of materials for Subject's use

1	2	3	4	5	0
grossly suitable		average		grossly unsuitable	no basis for rating

Comments: ______________________________

____

2. Safety precautions (safety to child)

1	2	3	4	5	0
excellent	above average	average	below average	grossly inadequate	no basis for rating

Comments: ______________________________

____

3. Childproofing (protection of breakables, avoiding destruction and unnecessary extra work)

1	2	3	4	5	0
maximal child-proofing maximal access		minimal child-proofing maximal access		maximal child-proofing minimal access	no basis for rating

Comments: ______________________________

____

4. Accessibility to living area

1	2	3	4	5	0
maximum	most of home	average	very little	minimum	no basis for rating

Comments: ______________________________

____

B. Adult effects

1. Adult's availability to Subject

1	2	3	4	5	0
maximum	above average	average	below average	minimum	no basis for rating

Comments: ____

____

2. Adult's scheduling of daily activities which are likely to enhance or inhibit development

1	2	3	4	5	0
maximum	above average	average	below average	minimum	no basis for rating

Comments: ____

____

Rating Scale II
Dimensions of Competence
(Preliminary Form)

Dimensions of Competence	Adult's response			
	excellent	average	poor	no basis for rating
1. To get and maintain attention of adults				
2. To use adults as resources				
3. To express affection to adults				
4. To express hostility to adults				
5. To lead peers				
6. To follow peers				
7. To express affection to peers				
8. To express hostility to peers				
9. To compete				
10. To prove oneself or show pride in one's accomplishments				
11. Role play				
12. Language development				
13. To sense dissonance				
14. To anticipate consequences				
15. To deal with abstractions				
16. To take the perspective of another				
17. To make interesting associations				
18. To plan and carry out multi-stepped activities				
19. To use resources effectively				
20. To dual focus				

Categories for Checklist I
Child-Adult Interaction, Subject Initiated

Subject's purpose	Abbreviations
To please	pl
To gain approval	gain app
To procure a service	proc serv
To gain attention	gain att
To maintain social contact	msc
To annoy	annoy
To direct/dominate/lead	direct
To compete/gain status	compete
To ease discomfort	ease disc

Comments:

APPENDIX D

Social Competence: Scoring Information

Social Competence: Scoring Information

After having collected data on the social behavior of children aged 1-3 years for the past year, we needed to calculate indices of social competence for each child. Using the original eight dimensions of social competence which formed the basis for the Social Behavior Checklist, we derived a scoring system based on: raw frequencies, on bonuses for favorable ratios of positive to negative and successful to unsuccessful behaviors, and on a bonus for the number of social abilities achieved. To be exact, the following discussion shows, for each dimension, what elements contributed to the overall competence scores.

Each of the eight dimensions of social competence is scored for each subject. One-year-olds' scores are computed separately from two-year-olds'. Raw scores are converted to standard scores, with the maximum score in each age group (ones and twos) receiving 10 points, and the intervening scores proportioned in between 0 and 10. The adult competence score consists of 5 dimensions: gaining the attention of an adult, using the adult as a resource, expressing affection and hostility to adults, showing pride in product, and adult role play. The peer competence score consists of 3 dimensions: leading and following, expression of affection and hostility, and competition for equipment and for adult's attention. Peer competence scores were computed only where sufficient interaction warranted their inclusion; that is, if during at least 60% of the time a child was observed he was in the presence of peers, then his peer score was computed. For children with both adult and peer scores, a combined index of social competence is computed based on all eight dimensions.

In summary, scores on all dimensions are converted to standard scores which range from 0 to 10. The maximum adult competence score is 50; the maximum peer competence score is 30; the maximum combined score is 80.

Scoring Social Behavior Checklist

Getting an adult's attention

From a psychological point of view, the ability to get an adult's attention through socially acceptable means is one factor contributing heavily to the social competence score. The frequency of successful socially acceptable attempts is counted; if success outweighs lack of success on this dimension, a bonus of two points is added. The actual ratio of success to lack of success is added to the score (with a maximum ratio of five); if total frequency of positive attention-getting attempts is greater than total frequency of negative attention-getting attempts, then a bonus of two points is added. Finally, the ratio of positive to negative attention-getting attempts is entered into the score. These elements are then added to produce a score on dimension one: getting an adult's attention.

Using an adult as a resource

If a child shows success in utilizing an adult as a resource, either instrumentally or emotionally, then the total frequency of such success is added to his competence score and receives greatest weight; further a bonus of two points accrues if success outweighs failure in using an adult instrumentally; next a two-point bonus is added for success outweighing failure in using an adult as an emotional resource; then the ratio of success to failure is entered in using an adult instrumentally (with a maximum of 5); the ratio of using the adult as an instrumental vs. an emotional resource is then added to the competence score for dimension two, using an adult as a resource.

Expression of affection and hostility to adults

The child's ability to express both affection and hostility is viewed as a manifestation of social competence. The total frequency of affection scores is added if the scores for affection outweigh the hostility scores, then the frequency of hostility scores is added; the presence of hostility scores receives a bonus of two points, and the ratio of affection to hostility is entered, with a maximum of 5. This method insures equal weighting of affection and hostility.

Pride in product

This dimension of social competence has been weighted equally in the scoring system, despite its lower frequency overall. Expressions of pride in creations, possessions, or actions are added to a subject's score in their raw frequency form.

Adult role play

Similar to pride in product in its less frequent occurrence, this dimension is likewise given equal weight in the scoring system, with total frequency of such scores entered into the competence score.

Leading and Following: Peers and Children

The ability to lead and follow other children (under age 7) is another dimension of social competence. The frequency of positive (or neutral) leadership attempts, combined with the frequency of following (with or without verbal directions) other children, formed one part of this score and receives greatest weight; further, if successful leadership attempts (positive, neutral, or negative) outnumbered unsuccessful attempts, a bonus of two points accrued; the ratio of success to failure in leadership attempts was added (with a maximum of 5); and finally, the subject received a bonus of two points if overall leadership attempts outweighed the following.

Expression of Affection and Hostility: to Peers and Children

The Subject's total affection frequency was entered, followed by a bonus for expression of hostility, and the inclusion of the ratio of affection to hostility. The frequency of hostility scores is entered only if affection scores are present.

Competition with Peers and Children

The score for competition consists of the number of successful attempts at competing for adult's attention, and for equipment, added to which is the ratio of success to failure in competition attempts.

The Distribution Score*

For children between eight and 36 months of age, the final step in determining the social competence score requires consideration of the breadth of such abilities.

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*Added in October 1974.

The social behaviors of competent three- to six-year-old children were the source of our definition of social competence. We listed eight social skills because they were each commonly seen in all of the well-developed children we studied. Some weight therefore has been given to the factor of distribution of social abilities as well as to the extent of the individual abilities. Very often children under three years of age have too little experience with children their own age to indicate their social abilities with peers. The result is a necessity to concentrate the assessment process for young children on the five dimensions of social competence shown by such children in interactions with adults or older children.

After calculating standard scores for each of the adult-oriented social competencies, a credit for representation across categories is added as follows: 12 points for scoring (1 or more points) in five categories, 8 points for scoring in four categories, and 4 points for scoring in three categories. For example, a child scoring 25 points in three categories gets a 4 point bonus, bringing his score to 29 points, while a child scoring 25 points in five categories gets a 12 point bonus, raising his score to 37 points.

In summary, scores on the five adult dimensions are converted to standard scores which range from 0 to 10. A bonus is then added to reflect the breadth of social skills. Including the bonus for representation in all five dimensions, the maximum adult social competence score is 62 points.

COMPETENCE FACTORS

(For Col.# headings see Social Behavior Checklist numbers entered in boxes on following page)

Subject: ____________________ Age: ________ Cycle: ________

Type A (Col 9 = 0 or blank)

Col: 10 12 14 16 18 20 22 24 34 36 38 46

Total __ __ __ __ __ __ __ __ __ __ __ __

Col: 48 50

Total __ __

10 → ____

if 10 > 12, 2 → ____

10/12 → 0> ____ >5

if 10 + 12 > 14 + 16, 2 → ____

10 + 12/14 + 16 → 0> ____ >5

A = Attention of Adult ____

18 + 22 → ____

18 > 20, 2 → ____

18/20 → 0> ____ >5

if 20 > 24, 2 → ____

18 + 20/22 + 24 → 0> ____ >5

R - Using Adult as a Resource ____

34 →

if 34 - 36 - 38 > 0, 36 + 38 ↘ ____

if 36 + 38 > 2, 2 → ____

34/36 + 38 → 0> ____ >5

RA = Expression of Affection and Hostility to Adults ____

PP = 46 + 48 ____

PP = Pride in Product

RP = 50

RP = Role Play ____

Type B (Col 9 = 1,2,3,4,5)

Col: 18 20 22 24 28 30 42 44 46 48 50

Total __ __ __ __ __ __ __ __ __ __ __

Col: 52 54

Total __ __

18 + 20 + 28 + 30 → ____

if 18 + 22 > 20 + 24, 2 → ____

18 + 22/20 + 24 → 0> ____ >5

if 18 + 20 + 22 + 24 > 28 + 30, 2 ↘ ____

LF = Leading and Following Peers and Children ____

42 → ____

if 42 - 44 - 46 > 0, 44 + 46 ↘ ____

if 44 + 46 > 2, 2 → ____

42/44 + 46 → 0> ____ >5

RP = Expression of Affection and Hostility to Peers and Children ____

48 + 52 → ____

48 + 52/50 + 54 → 0> ____ >5

C = Competition with Peers and Children ____

	A	R	HA	RP	PP	HP	LF	C		Competence
Raw	__	__	__	__	__	__	__	__	=	________
Weight	__	__	__	__	__	__	__	__		
Corrected	__	__	__	__	__	__	__	__	=	________

Name: ______________________ Date and Time ____________________

Code# ______ Age ______ Place of Obs. __________ Observer ________

CHECKLIST FOR SCORING SOCIAL BEHAVIOR

A. Categories for Interaction between Child and Adult

1. ATTENTION of ADULT - POSITIVE (Examples of behavior to be scored: Moves toward and stands or sits near A; touches A; calls to A, shows something to A; tells something to A.)

Successful	Unsuccessful
10	12

2. ATTENTION of Adult - NEGATIVE (Shows off; misbehaves.)

Successful	Unsuccessful
14	16

3. Uses Adult as a RESOURCE - INSTRUMENTAL (Seeks explanation or information; seeks A's judgment in peer dispute; seeks A's help with clothing, equipment, or food.)

Successful	Unsuccessful
18	20

4. Uses Adult as a RESOURCE - EMOTIONAL (Seeks comforting, seeks reassurance.)

Successful	Unsuccessful
22	24

5. CONTROLS Adult - Positive, Neutral, or Negative (Directs A in a positive, neutral, or negative manner.)

Successful	Unsuccessful
26	28

6. COMPLIANCE with Adult's Directives (Child readily follows A's directives.)

30

7. NON-COMPLIANCE with Adult's Directives (Resistance, either verbal or physical; disobeys, ignores.)

32

8. Expresses AFFECTION to Adult (Verbal affection - smiles, laughs, makes friendly statement; physical affection - touches hugs, shares, makes friendly gesture.)

34

9. Expresses HOSTILITY to Adult (Verbal - rejections or expressions of dislike; physical - hits, grabs, throws object, tantrum, rejects physical affection.)

Verbal	Physical
36	38

10. IMITATION of ADULT (Direct imitation of A's statement or action.)

Verbal	Physical	Unspecif.
40	42	44

11. PRIDE in Product - CREATION (expresses pride in a creation S has completed; either to self, peer, or adult.)

46

12. PRIDE in ATTRIBUTE (Expression of pride in possessions or actions; boasting.)

48

13. ADULT ROLE PLAY (Dresses up like adult, plays adult role, expresses desire to grow up.)

50

14. CHILD ROLE PLAY (Plays immature role, expresses desire to remain a child.)

52

NOTE: PLEASE LIST COMMENTS ABOUT THIS SUBJECT ON REVERSE SIDE.

- -

B. Categories for Interaction between Peers

1. ATTENTION OF PEER (Moves toward and stands or sits near P; touches P; calls to P; shows something to P; tells something to P; shows off.)

Successful	Unsuccessful
10	12

2. Uses Peer as a RESOURCE - INSTRUMENTAL (seeks explanation or information; seeks P's help with clothing or equipment.)

Successful	Unsuccessful
14	16

3. LEADS IN Peer Activities - POSITIVE or NEUTRAL (Directs P in a positive or neutral manner.)

Successful	Unsuccessful
18	20

4. LEADS in Peer Activities - NEGATIVE (Directs P in a negative manner.)

Successful	Unsuccessful
22	24

5. Serves as a MODEL for Peer (Situations where S is copied by P without having given P any directions to do so.)

26

6. FOLLOWS lead of Peers - Peer gives S VERBAL directions (Follows P in what to do or how to do something; follows but modifies peer's directions.)

28

7. FOLLOWS lead of Peers - Peer gives NO VERBAL DIRECTIONS (Involved observation; verbally supports peer's statement; follows peer around; joins peer or group engaged in specific activity.)

30

8. REFUSES to FOLLOW Peer's Directions (Resists, refuses, disobeys, or ignores peer's directions.)

32

9. IMITATION OF PEER (Repeats sound or action of peer, (e.g., word, phrase, sentence, gesture, sequence of behavior in game, etc.)

WHO	WHAT
34	FV
36	FP
38	MV
40	MP

10. Expresses AFFECTION to Peer (Verbal - smiles, laughs, makes friendly statement; physical - touches, hugs, offers help or sharing.)

42

11. Expresses HOSTILITY to Peers (Verbal - hostile or resistant statements; physical - hits, grabs, spits, physically disrupts peer's activity (equipment), refuses to share, rejects physical affection.)

VERBAL	PHYSICAL
44	46

12. COMPETES with Peer for Adult's Attention (Talks about materials or peers in which A is showing an interest; tries to be picked by A for a specific task.)

Successful	Unsuccessful
48	50

13. COMPETES with Peer for EQUIPMENT (Verbal or physical competition over classroom objects or equipment.)

Successful	Unsuccessful
52	54